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Birds

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Robt. H. Wolcott

A

PRELIMINARY REVIEW

OF THE

BIRDS OF NEBRASKA

WITH SYNOPSES

BY

LAWRENCE BRUNER ROBERT H. WOLCOTT
MYRON H. SWENK

Corrected to June 1, 1904.

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INTRODUCTION

In 1896, Prof. Bruner published his list entitled "Some Notes on Nebraska Birds." As a working basis for the study of the ornithology of the state it has proven invaluable and it has also been greatly in demand by people not ornithologists, who desired to "know something about our birds." That edition was exhausted some time ago and its author has been frequently urged to publish another. However, the organization of the Nebraska Ornithologists' Union and the development of ornithology in the University has led to such a rapid increase in our knowledge in the past five years that it seemed that any publication would soon become out of date, and so no one ventured to undertake the task.

It is under these conditions that the opportunity has been offered, through the kindness of Ex-Governor Furnas, Secretary of the State Board of Agriculture and an enthusiastic member of the Union, to prepare something on the birds of the state. It seemed too good an opportunity to be lost, and yet, under the circumstances, the authors of this contribution feel that it can only be considered, as its title states, as a preliminary review.

It should be understood, nevertheless, preliminary in one sense as it is, that it has been prepared with the greatest care, and is believed to represent exactly the state of our knowledge at the present day. Every species has been carefully considered, the specimens available examined, its occurrence in surrounding states studied, the records in Bruner's list thoroughly canvassed, as well as all data which have accumulated since, and the whole reduced to such statements as indicate clearly the limits of our knowledge in regard to the form under consideration. All specimens about which there could be any doubt were sent to authorities east for exact determination. Those species that have been previously reported from Nebraska but the right of which to a place in our fauna is questioned or denied have been introduced, but in brackets. There have also been added under the phrase "extralimital" those species which may possibly be found in the state in the future.

This introduction of extralimital forms and their inclusion in the synopses has been thought desirable for the reason that many of them are almost sure to be found sooner or later, and this calling attention to them may result in their earlier detection and addition to our list. The aim has been to prepare a work which should not only reflect the present state of our knowledge, but at the same time be a new basis for future work. For the same reason all species which are known definitely to have bred within our limits are marked with an asterisk. It will be evident to the reader that the addition of the figures showing the details of bird structure and the article on Birds in relation to Agriculture and Horticulture, as well as of the synopses themselves, is in order that the paper may be useful to any one, whether an ornithologist or not, and may be the means of further increasing

the interest in birds and love for them, in the state, and so advancing the cause of bird protection. It is not expected, however, that it will be sufficient for the student of ornithology, who should possess beside some good manual with full descriptions and figures of our birds, such as Apgar's Birds of the Eastern United States, Chapman & Reed's Color Key to North American Birds, or if he can afford a more expensive work, either Ridgway's Manual or Coues' Key. Some day this preliminary review may be expanded into a complete, illustrated work on Nebraska birds, but it remains for the generosity of the state legislature or of some state society, interested in their preservation, to say when that shall be.

The numbers preceding each species are those of the American Ornithologists' Union check list, and in regard to nomenclature the same list has been followed implicitly; the possessive has however been omitted from the common names.

The authors desire to acknowledge the assistance received, in the way of data, from various members of the Union and local bird club, whose names appear in connection with the records under different species, and also to recognize their indebtedness to Apgar's Birds of the Eastern United States, the keys in which have formed the basis for some of the synopses here used.

The thanks of the authors are also here extended to those of our ornithological authorities who have generously determined specimens sent to them—Messrs. H. C. Oberholser of the U. S. Biological Survey and Witmer Stone of the Philadelphia Academy of Natural Sciences.

In the working over of records and material and in the comparison of authorities all the authors have participated, but a large part of the clerical work and of the preparation of the synopses has been done by Mr. Swenk.

BIRDS IN RELATION TO AGRICULTURE AND HORTICULTURE*

BY LAWRENCE BRUNER

Nebraska is a good home for birds. We know definitely as many as four hundred different kinds that have been found within our borders and the presence of 11 more is quite probable. Of these two hundred are definitely known to nest in the state; many more certainly should be added to the list. During winter months more than one hundred (120) have been recorded, while the others leave in the fall for the warmer south country, only to return to us with the advent of pleasant weather in the following spring. While there is much to be learned concerning the migrations, nesting, moulting, songs and peculiar ways of living among the different birds that we may see in our groves, fields, along the streams, on the prairies, and about the hedge rows and garden patches, the most important feature connected with their lives to us is their food habits. For it is by what they eat that birds can and do make themselves of so much value to us. Of course birds are of different colors, sizes, and forms, and have their beaks, feet, wings, and tails made so as to best conform to the uses for which they are intended. The woodpeckers have hard, chisel-like beaks for cutting holes in the bark and wood, and, at the same time, their tail feathers are stiff and pointed so as to be of use as props for holding the birds in place while busily engaged at nest making or digging for borers. In a like manner their long tongues are barbed so as to spear and drag forth the "worms" when reached. The short, strong beaks of the sparrows and their relatives are likewise suited for cracking the many kinds of weed seeds eaten by these birds in winter, as well as for crushing such insects as are eaten by the parents or fed to their young during the summer time.

On account of this most important feature in connection with our birds, we will confine our remarks in this paper chiefly to what they eat, and leave the descriptions of the birds themselves, their haunts, migrations, and nest building for some other time. Then too, almost everybody knows a few of these last mentioned things about most of our common birds.

Birds can be useful to us in many ways. They can carry the seeds of different plants from one place to another so as to help start new groves in which we and our domestic animals may find shelter from the cold winds of winter and the oppressive heat in summer. They plant seeds of shrubs by the way-

*The present chapter is a combination of two former papers by the author, on the same topic, but the subject matter has been somewhat modified and abridged. The first of these papers appeared in the Proceedings of the Nebraska Ornithologists' Union, II, pp. 18-29, and the second in the New Elementary Agriculture, pp. 103-117. This last work was issued by the University Publishing Company of Lincoln, Nebr.

side that spring up either to give shade or later to bear good fruit. They also carry the spawn of fishes and small crustaceans among their feathers into new waters, and feed upon the countless millions of weed seeds that are scattered broadcast over our fields, meadows, pastures, and prairies. Some kinds live almost entirely upon insects; while others hunt out and destroy such small animals as mice, ground squirrels, and gophers. Still others, like some of the useful insects, act as scavengers by helping to remove decaying things that would make us sick if not cleared away.

In addition to these direct benefits which we derive from the birds, we are further indebted to them for the cheer which their gay music, bright plumage, and pleasant manners bring to us. The birds form a carefully planned army of police, which is engaged in keeping things in nature about us balanced.

But we can go even further when summing up the benefits that human beings derive from birds. A great many kinds provide us with excellent food, while others furnish downy feathers for making soft pillows upon which to rest our weary heads and warm coverlets for use upon our beds during the long cold winters.

Everybody knows that birds sometimes also do harm. It is therefore our duty to learn just what this is and whether or not it is as great as some people try to make us believe. Quite a number of different kinds of birds are continually doing things that we call wrong. If we only know of these wrongs and nothing of the good things which they do it might go pretty hard with our feathered neighbors.

Some of the wrongs that are perpetrated by birds, or at least which are credited to them, are such as cherry stealing, grain eating, grape puncturing, apple pecking, corn pulling, the carrying of various kinds of bark and other plant lice on their legs and feet from place to place, the spreading of hog cholera by crows and turkey buzzards, the robbing of eggs and young birds from nests and even the poultry yard.

Some of these so-called crimes are genuine and are to be regretted. Others are more imaginary than real. A few of them could be prevented in part or altogether, while others might be made less severe, if we were inclined to take the trouble to do it. After all that can be said in favor of and against the usefulness of birds in general, there can be but little doubt left in the minds of thinking and observing people as to the value of these creatures. Only ignorant and thoughtless persons will continue to destroy our birds indiscriminately after learning the actual facts about them.

So varied is the task of "evening up" in nature spoken of above, that if attended to in the right way, the workers should be many and necessarily have widely different habits. That such really is the case, can easily be seen from a perusal of the following short account of the food habits of some of the different groups of our Nebraska birds:

Grebes and loons feed chiefly on snails and other water animals such as are found about ponds, lakes, and rivers. They also destroy grasshoppers and other destructive insects when these latter are found about their haunts.

The gulls, with their long wings and great powers of flight, often reach far inland in their journeys. Whenever they do they catch large numbers of

grasshoppers, crickets, June-beetles, and other common insects. Four or five kinds of these birds breed in our state in large numbers every summer, and may frequently be seen following the farmer as his plow turns up the juicy but destructive grubs.

The ducks and geese, like their tame relatives, are also very fond of insects, which they catch about the margins of ponds and lakes near which they build their nests and raise their young. Even such birds as the bitterns and other herons kill many insects in addition to the snails, fishes, frogs, and other small animals which in part make up their bill of fare.

The different kinds of snipes and their relatives are also great destroyers of insects. Moving over the landscape, as many of them do, in large flocks which spread out over the meadows, pastures, hillsides, and fields, they perform a large amount of systematic police service in discovering and arresting the rascals among insects. They even pry them out of the cracks and holes in the ground where they have crawled and are hiding during the daytime. This they are enabled to do on account of the long, slender bills with which they are provided.

The Prairie Chicken and Sharp-tailed Grouse, as well as the Quail or "Bob-white," all feed almost entirely on insects during the summer. They also eat large numbers of these creatures during the remainder of the year whenever they can get them. The Quail especially is to be considered one of our very best insect destroyers, since it eats both the Colorado potato beetle and the chinch-bug. Perhaps no other bird on the farm pays higher prices for the little grain it gets than does the Quail. Living about hedge-rows, groves, and in ravines, where insects gather and lurk during the greater part of the year, this bird discovers and devours large numbers of these enemies daily. Not only during the summer months when these vermin are moving about, but all winter, too, it scratches among the fallen leaves, and other rubbish seeking for hibernating insects of various kinds. Being a timid bird it seldom leaves cover to feed openly in the fields, and therefore does little real harm in the way of destroying grain.

Even the barnyard fowls do much in the way of destroying many different kinds of insects throughout the summer months. Where fields of grain can be gone over systematically by chickens, turkeys, guinea hens, and ducks, little or no damage is done by grasshoppers, cut-worms, and other similar pests, unless, of course, these insects are too numerous to be eaten by them.

Ordinarily doves and pigeons are not considered harmful, yet they eat but few insects. But, on the other hand, many weed seeds, as sunflower, ragweed, foxtail, etc., are eaten by them. Perhaps, all told, the good done by them during the year will greatly overbalance the harm caused by their visits to the grain fields and feed lots.

During recent years, since we began studying more carefully just what our various kinds of birds have been eating, it has been learned that many of those which we heretofore called rascals should really be considered as friends. Hawks and owls, all of which were killed on sight by nearly every man or boy who could shoot, are now spared, except when caught in the very act of stealing chickens. This change is due to the fact that we now know that

they feed mostly on mice, squirrels, gophers, prairie dogs, and rabbits, as well as on many harmful kinds of insects.

Our Yellow-billed and Black-billed Cuckoos feed chiefly on hairy caterpillars and several other kinds of insects which they find lurking among the leaves of trees. Although considered among our shyer species, they even come about our houses and venture into towns and cities for their favorite insect food.

There are few persons who will not admit that the woodpeckers as a family are very useful birds. Feeding as they do, on the young of wood-boring insects, they can do more relative good for the number of insects destroyed than if they feed on such kinds as attack the leaves. A single borer left undisturbed might kill a tree, while hundreds of leaf eaters of the same size would scarcely be noticed if warning of their presence depended on the effect their feeding had upon the appearance of the same tree. The commonest kinds of woodpeckers in Nebraska are the Flicker, Red-headed, Downy, and Hairy, all of which are often seen about our groves and orchards, where they carefully hunt for borers and other harmful insects.

Birds like the Whippoorwill, Nighthawk, and Chimney Swift eat nothing but insects such as they catch in the air while flying about. The first two are night fliers, while the other is one of our birds that flies and feeds during daytime.

The family to which the King-bird or Bee-bird belongs is also one that is made up of insect eaters. They catch such kinds as flies, butterflies, moths, beetles, and grasshoppers. The few bees eaten by the Bee-bird should not count against the other members of the family, nor should we blame even the bee-killer himself too much for the occasional rascal of his kind that prefers to sit near a hive and catch drones and, rarely, a worker.

Crows and their relatives, the magpies and jays, are sometimes called rascals. Perhaps there is good reason in a number of cases for giving these birds so bad a name; but we must not judge them too hastily, for sometimes there are good deeds done even by the greatest of rascals. After finding out what these deeds are, good and bad, we may think that enough good has been done to at least give the "rascal" another chance. All of these birds eat more insects, bulk for bulk, than they do of any other substance. The Blue Jay does much of the mischief for which we blame the Robin, orioles, and thrushes, and then sneaks away like a thief. He also robs the nests of our smaller and weaker birds at times. To partly offset these mean traits he destroys large numbers of injurious insects.

The meadowlarks, orioles, and blackbirds are the most important destroyers of such insect pests as attack field crops. They remain with us during the whole year save for only a few months in the winter; gathering in large flocks, as several kinds do, they can wipe out an insect plague in a short time. The large flocks of red-winged blackbirds which visit our cornfields do so to secure the destructive ear-worm which abounds at that time of the year, and not for the corn, as many of us suppose. Don't kill any of these useful birds, because they more than pay for the vegetable food which they eat.

Our sparrows and their relatives of the family Fringillidae form a very ex-

tensive group of highly useful, as well as beautiful, birds. They spend most of their time during the summer months when not actually occupied with nest building and rearing their young, in hunting for and destroying different kinds of insects. But this is not all the good they do. In fall, winter, and early spring, when Mother Earth has lost her beautiful green dress and is clothed instead in somber browns and wrapped in a mantle of snow and ice, the longspurs, snowbuntings, snowbirds and some of the sparrows that have remained with us, are busily engaged in gathering for themselves a living. They hop and fly about from place to place hunting for and picking up little seeds of grasses, weeds, shrubs, and trees with which to feed themselves and keep alive until the warm weather of spring returns and brings back to them the abundant supply of nourishing insects of which they are so fond. Even during this busy cold season, they chirrup merrily as they work, so satisfied are they with the kind of life they are living. The English, or European House-sparrow, has the worst reputation of the entire family. But even this bird has some good traits which tend to secure for it our friendship.

The swallows, as we all know, are insect destroyers; and, seizing their prey as they fly, they naturally take such forms among these pests as flies, gnats, and mosquitoes—our worst personal enemies. We should by all means encourage these birds to build their nests in our barns and sheds in order that they may pay rent by destroying the various flies that attack and worry ourselves and our domestic animals.

The shrikes or butcher-birds are genuine brigands or pirates when it comes to killing other forms of life. They are true to their name, and butcher large numbers of insects, mice, lizards, small snakes, and even occasionally a few of the smaller birds. They take their prey to some thorn bush or barbwire fence and impale the victims for future use or to dry up and blow away. The good they do will more than outweigh the harm which they inflict.

The vireos or greenlets, as they are commonly called, which frequent thickets and hedgerows, live almost entirely upon an insect diet. Their food is composed chiefly of little caterpillars and grubs picked from the leaves of small trees and shrubs which form the shelter in which they make their homes. They are not entirely averse to eating some of the hairy forms, and in this respect aid the cuckoos mentioned in a preceding paragraph.

The warblers are insect destroyers. Brightly-colored, active creatures as they are, they fill a gap in nature which would be empty without them. They flit about the terminal twigs and leaves of our trees and shrubs where they detect and capture many of our smaller, but at the same time very dangerous, insect pests. Plant-lice and the smaller caterpillars are at times quite prominent in their bill of fare.

Much could be written about birds like the wrens, the Mockingbird, and the Catbird, but they are too well known in one way or another to make it necessary to spend time or space here for the purpose of introducing them anew. Suffice it to say, that they more than pay for what they eat by killing off some of the decidedly harmful insects. Then, too, they are to be numbered among the most beautiful singers of the feathered choir, which latter fact in itself fully offsets the harm done by them in the way of fruit eating.

The nuthatches, titmice, and others of our winter and early spring birds are too well known as friends to make it necessary here to even hint at their usefulness. The eggs of many hibernating insects are quite prominent among the things eaten by them throughout the season when the trees are bare and bird food is scarce.

The Robin and the Bluebird need no introduction even to our boys and girls. We all know them only to wish that their numbers could be greatly increased. The former as it hops over the grass-covered lawn in search of cut-worms, is engaged in its chief occupation. Seventeen quarts of caterpillars, it is claimed, is the average number of such insects destroyed by each robin annually; and of this quantity about one-half or more are cut-worms. We need not stop to ask whether or not the destruction of these will pay for the cherries and berries eaten.

Summing up the work of our birds as relates to their destruction of insects, it can be briefly stated as follows:

"In the air swallows and swifts are coursing rapidly to and fro, ever in pursuit of the insects which constitute their sole food. When they retire, the night-hawks and whippoorwills take up the chase, catching moths and other nocturnal insects which would escape the dayflying birds. Flycatchers lie in wait, darting from ambush at passing prey, and with a suggestive click of the bill returning to their post. The warblers, light, active creatures, flutter about the terminal foliage, and with almost the skill of a hummingbird, pick insects from leaf or blossom. The vireos patiently explore the under sides of leaves and odd nooks and corners to see that no skulker escapes. The woodpeckers, nuthatches, and creepers attend to the trunks and limbs, examining carefully each inch of bark for insects' eggs and larvae, or excavating for the ants and borers they hear within. On the ground the hunt is continued by the thrushes, sparrows, and other birds that feed on the innumerable forms of terrestrial insects. Few places in which insects exist are neglected; even some species which pass their entire lives in the water are preyed upon by aquatic birds."*

In nearly every case where the food habits of our birds have been carefully studied, do we find that the good done far exceeds the possible harm that might be inflicted by our birds. Allowing twenty-five insects per day as an average diet for each individual bird, and estimating that we have about one and one-half birds to the acre, or in round numbers 75,000,000 birds in Nebraska, there would be required 1,875,000,000 insects for each day's rations.

Again estimating the number of insects required to fill a bushel at 120,000, it would take 15,625 bushels of insects to feed our birds for a single day, or 2,343,750 bushels for 150 days. These estimates are very low when we take into account the numbers of insects that various kinds of our birds have been known to destroy in a single day. For example, the stomach of four chickadees contained 1,028 eggs of cankerworms. Four others contained about 600 eggs and 105 mature females of this same insect. The stomach

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*Frank M. Chapman in Bird Life—D. Appleton & Co.

of a single Bob-white contained 101 potato-beetles; and that of another upwards of 500 chinch-bugs. A yellow-billed cuckoo shot at six in the morning contained forty-three tent caterpillars. A robin had eaten 175 larvae of *Bibio*, which feed upon the roots of grasses, etc.

Birds, like all other animals, feed upon that food which is most readily obtained, hence the insectivorous kinds destroy those insects which are the most numerous—the injurious species; and likewise the seed-eaters subsist largely upon the seeds of our weeds.

TOPOGRAPHY OF BOHEMIAN WAXWING FOR BEGINNERS

1 Upper mandible.
2 Culmen.
3 Nostril.
4 Forehead.
5 Lores.
6 Superciliary stripe.
7 Crown.
8 Crest.
9 Occiput.
10 Auriculars or ear-coverts.
11 Nape.
12 Interscapular region.
13 Back.
14 Scapulars.
15 Tertials.
16 Rump.

17 Upper tail-coverts.
18 Tail feathers.
19 First primary.
20 Primaries.
21 Tarsus.
22 Hind toe.
23 Outer toe.
24 Middle toe.
25 Inner toe.
26 Abdomen or belly.
27 Secondaries.
28 Side.
29 Greater wing-coverts.
30 Middle wing-coverts
31 Breast.
32 Lesser wing-coverts.
33 Carpal joint.
34 Jugulum.
35 Throat.
36 Chin.
37 Gape.
38 Lower mandible.
39a Cere on bill.

TYPES OF BILLS AND FEET

39 Strongly hooked bill of hawk.
40 Falcate bill of Mexican Crossbill.
41 Tubular nostril of Fulmar Petrel.
42 Raptorial foot of Long-eared Owl.
43 Lobate foot of Pied-billed Grebe.
44 Palmate foot of duck.
45 Totipalmate foot of cormorant.

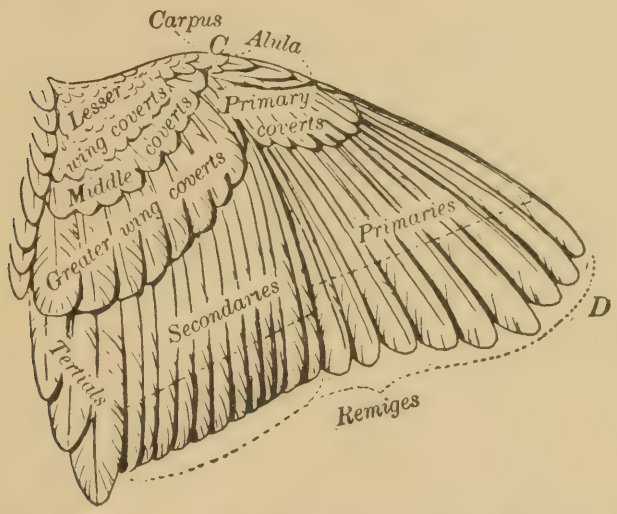

DIAGRAM SHOWING THE VARIOUS FEATHER TRACTS ON THE WING OF A BIRD (FROM CORY'S BIRDS OF EASTERN NORTH AMERICA)

SYNOPSES AND LIST

THE ORDERS OF NEBRASKA BIRDS

1. Hind toe connected by web with inner front toe. . . . . III. Steganopodes.
1. Hind toe, if present, not connected with inner front toe. . . . . (2)
   2. Cutting edges of bill more or less fringed or serrated . .IV. Anseres.
   2. Cutting edges of bill not fringed or serrated. . . . . (3)
3. Legs inserted in the rear of the body; toes webbed or lobed. I. Pygopodes.
3. Legs inserted near middle of body, or else toes not webbed. . . . . (4)
   4. Front toes distinctly webbed, and tarsus shorter than tail. . . . . II. Longipennes.
   4. Front toes not distinctly webbed, or else tarsus longer than tail. (5)
5. Tibia more or less naked below; waders. . . . . (6)
5. Tibia entirely feathered; not waders. . . . . (8)
   6. Hind toe long and on the same level as the others; lores naked . . . . . V. Herodiones.
   6. Hind toe, if present, small and elevated; lores feathered. . . . . (7)
7. If more than 3 feet long, hind toe elevated; if less, on the same level. . . . . VI. Paludicolæ.
7. Never more than three feet long, hind toe, if present, elevated. . . . . VII. Limicolæ.
   8. Bill strongly hooked, and with distinct naked cere at base. . . . .(9)
   8. Bill not both strongly hooked and cered; or if cered the bill straight . . . . . (10)
9. Toes 3 in front, the outer toe sometimes reversible. . . X. Raptores.
9. Toes 2 in front, 2 behind. . . . . XI. Psittaci.
   10. Hind toe short, decidedly elevated. . . . . VIII. Gallinæ.
   10. Hind toe but very slightly elevated, if at all. . . . . (11)
11. Bill with a soft swollen cere . . . . . IX. Columbæ.
11. Bill without a cere. . . . . (12)
   12. Wing very long, tail feathers 10, gape very wide and deeply cleft; or else bill long and slender and secondaries 6. . .XIV. Macrochires.
   12. Wing not very long and gape not wide or deeply cleft; or else tail feathers 12. . . . . (13)
13. Toes 2 in front, or if 3, middle and outer toes connected for one-half their lengths. . . . . (14)
13. Toes 3 in front, middle and outer ones not connected for one-half their lengths. . . . . XV. Passeres.
   14. Tail feathers stiff and pointed. . . . . XIII. Pici.
   14. Tail feathers not stiff, nor pointed. . . . . XII. Coccyges.

Order I. PYGOPODES—Diving Birds

A. Feet lobed but not webbed. . . . . **Podicipidæ.**
A. Feet webbed. . . . . **Gaviidæ.**

Family PODICIPIDÆ—Grebes

1. Bill longer than head (3 inches), five times as long as deep, slender, acute, straight; size very large; neck very long; above slaty, crown and hind neck black, elsewhere pure white. . . . . **Western Grebe.**
1. Bill shorter than head (1 inch), less than twice as long as deep, very stout, compressed sideways, hooked at tip; size small; in summer throat and band on bill black. . . . . **Pied-billed Grebe.**
1. Bill equal to or shorter than head (1 to 2½ inches), less than four times as long as deep, stoutish, straight; size small to large; neck moderate; in summer head crested. . . . . (2)
   2. Wing about 7½ inches; bill about as long as head; sides of neck rufous in adult. . . . . **Holbœll Grebe.**
   2. Wing 5 to 6 inches; bill shorter than head. . . . . (3)
3. Bill compressed, higher than broad at base; neck red in front in summer . . . . . **Horned Grebe.**
3. Bill depressed, broader than high at base; neck black in front in summer. . . . . **Eared Grebe.**

1. **Æchmophorus occidentalis** (Lawrence)—Western Grebe.

   A straggler from the west, breeding from North Dakota and Manitoba northwards. Recorded twice from Nebraska, once from Cut-off lake, near Omaha by L. Skow, and again from Curtis, where Rees Heaton has taken a specimen.

2. **Colymbus holbœllii** (Reinhardt)—Holbœll Grebe.

   A northern grebe, breeding locally north of the United States, but occasionally reaching the latitude of southern Nebraska in late fall and winter. A specimen was taken at Alda by F. W. Powell, and another shot at Curtis is now in the Rees Heaton collection at that place.

3. ***Colymbus auritus** Linnaeus—Horned Grebe.

   Rather a rare migrant and breeder. Recorded migrating at West Point, Ravenna, and Lincoln. Found breeding in the alkali lakes of northern Cherry county by I. S. Trostler, and a pair, with newly made nest, noted at Little Alkali lake, in the same region, June 6, 1903, by Wolcott.

4. ***Colymbus nigricollis californicus** (Heerman)—Eared Grebe.

   A common migrant throughout the state, breeding in abundance in the lake region of Cherry county. Also found breeding in small num-

bers at West Point and Omaha. Arrives in spring about the end of April; departs by the end of September.

6. ***Podilymbus podiceps** (Linnæus)—Pied-billed Grebe.
An abundant migrant, and a common breeder in suitable localities throughout the state. Arrives about the middle of April and lingers till October.

Family GAVIIDÆ—Loons

1. Back black or blackish, distinctly spotted with white. . . . . (2)
1. Back blackish, not spotted with white, but the feathers gray tipped. . (3)
2. Throat whitish, in summer foreneck with chestnut. . . . . **Red-throated Loon.**
2. Throat black, sides of neck with white streaks and no chestnut (3)
3. Wing 13 to 15 inches long; crown black in summer. . . . . **Loon.**
3. Wing 11 to 13 inches long; crown ashy in summer. . **Black-throated Loon.**

7. **Gavia imber** (Gunnison)—Loon.
A not common migrant, breeding from northern United States northward. Numerous records; Omaha, Lincoln, West Point, Rockport, Curtis, etc. Seen early in spring and late in fall.

9. **Gavia arcticus** (Linnaeus)—Black-throated Loon.
A bird of the arctic regions wintering south to the northern states. One Nebraska record, a fine male, in the Rees Heaton collection, having been taken at Curtis.

11. **Gavia lumme** (Gunnison)—Red-throated Loon.
Also an Arctic bird, found in the northern states in winter. Two records, a specimen being taken on the Missouri near Omaha, Sept. 28, 1894, and another April 6, 1897, both males and both reported by I. S. Trostler.

Order II. LONGIPENNES—Long-winged Swimmers

A. Upper mandible of three pieces, a hook, lateral piece, and cere. . . . . **Stercorariдæ.**
A. Upper mandible of one piece. . . . . **Laridæ.**

Family STERCORARIDÆ—Jaegers

1. Middle pair of tail feathers rounded; wing 13½ and culmen over 1½ inches long. . . . . **Pomarine Jaeger.**
1. Middle pair of tail feathers acute, wing under 13½ and culmen under 1½ inches long. . . . . (2)
2. Cere more than half as long as culmen; adult with tail about 8½ inches long. . . . . **Parasitic Jaeger.**
2. Cere less than half as long as culmen; adult with tail 11 to 15 inches long. . . . . **Long-tailed Jaeger.**

36. **Stercorarius pomarinus** (Temminck)—Pomarine Jaeger.
A rare migrant, breeding far north. Aughey saw it once on the

Missouri river, in Dakota county, in May, 1869, and a specimen was sent to him, shot on the Platte river near Fremont, in May, 1873. A third record is fom M. K. Barnum, of one shot at North Platte, Nov. 11, 1895.

37. **Stercorarius parasiticus** (Linnaeus)—Parasitic Jaeger.

A rare migrant. One record for Nebraska, a specimen having been shot by August Eiche on Salt lake near Lincoln, Sept. 13, 1898, and now in his collection.

EXTRALIMITAL: The third member of this genus in North America, 38. *S. longicaudus* Vieillot, the Long-tailed Jaeger, also rarely migrates through the interior, but has not been taken in Nebraska as yet.

Family **LARIDÆ**—Gulls and Terns

1. Bill with upper mandible strongly curved and hooked at tip, directed forward in flight; tail generally even at tip, rarely slightly forked; voice hoarse; (Subfamily **Larinæ**—Gulls). . . . . (2)
1. Bill with upper mandible slightly and evenly curved throughout, sharply pointed and not hooked at tip, pointed downward in flight; tail forked, generally deeply so; voice shrill; (Subfamily **Sterninæ**—Terns). . .(11)
2. Plumage without black, even on the primaries. . . . . (3)
2. Plumage with more or less black, at least on the primaries. . . . .(4)
3. Bill over 2 inches long and wing over 16½ inches long. . . **Glaucous Gull.**
3. Bill under 2 inches long and wing under 16½ inches long. . . **Iceland Gull.**
4. Hind toe very minute and without a nail; head mostly white. . . . . **Kittiwake.**
4. Hind toe well formed and with a nail. . . . . (5)
5. Tail forked for about an inch; primaries largely black, 2 to 4 white-tipped. . . . . **Sabine Gull.**
5. Tail not at all forked. . . . . (6)
6. Large, wing 14 to 19 inches long; head, tail, and under parts white in summer adult. . . . . (7)
6. Small, wing 10 to 13 inches long; head black in summer adult (9)
7. Back and wings slaty black in adult, brownish in young; wing over 17½ inches . . . . . **Great Black-backed Gull.**
7. Back and wings pearl gray in adult; wing under 17½ inches long. . . . . (8)
8. Wing about 17 inches; feet flesh-colored; bill chrome yellow; young mottled. . . . . **Herring Gull.**
8. Wing about 16½ inches; feet yellowish; bill with a red spot below. . . . . **California Gull.**
8. Wing about 15 inches; feet yellowish; bill banded with black near tip. . . . . **Ring-billed Gull.**
9. Outer primary wholly black; wing over 12 inches; bill reddish in summer. . . . . **Laughing Gull.**
9. Outer primary with white in adult; wing under 12 inches. . . . . (10)
10. Tip of outer primary white in adult; bill red; wing about 11 inches. . . . . **Franklin Gull.**

10. Tip of outer primary black in adult; bill black; wing about 10 inches. . . . . **Bonaparte Gull.**

11. Back, wings, and tail slaty; in summer head and under parts black, in winter white. . . . . **Black Tern.**

11. Back and wings pearl gray, crown more or less black. . . . . (12)

12. Small, wing about $6\frac{5}{8}$ inches; forehead white, crown and line through eye black, bill yellow in summer. . . . . **Least Tern.**

12. Medium, wing $9\frac{1}{2}$ to $11\frac{3}{4}$ inches; crown wholly black, bill red in summer. . . . . (13)

12. Large, wing 14 to 17 inches; crown wholly black, bill orange (15)

13. Inner web of outer tail feather gray, outer web white; under parts pure white. . . . . **Forster Tern.**

13. Inner web of outer tail feather white, outer web gray; under parts grayish. . . . . (14)

14. Bill red, tipped with black; tarsus over $\frac{7}{10}$ inch; tail one-half length of wing. . . . . **Common Tern.**

14. Bill wholly red; tarsus under $\frac{7}{10}$ inch; tail two-thirds length of wing. . . . . **Arctic Tern.**

15. Primaries wholly blackish, silvery on outer web; tail less forked; larger. . . . . **Caspian Tern.**

15. Primaries with inner two-thirds of inner web, except tip, white, the tip and outer web frosty black. . . . . **Royal Tern.**

47. **Larus marinus** Linnaeus—Great Black-backed Gull.

The only Nebraska record for this bird is Aughey's, he having examined a dead specimen which some Winnebago Indians had shot on the Missouri and brought to Dakota City in May, 1871. He states that this was the only instance of its occurrence in Nebraska known to him. Some doubt has been expressed as to the acceptability of this record, but the bird winters regularly to the Great Lakes, and is so well-marked in adult plumage by its slaty mantle and even in the young by its very large size, that misidentification is hardly possible.

51. **Larus argentatus** Bruennich—Herring Gull.

A rather rare migrant. Aughey records two specimens, procured from the Winnebago Indians in May, 1870. Since then other observers have recorded it from West Point, Lincoln, Omaha, Rockport, Gresham, and Beatrice. Breeds from northern states northward.

54. **Larus delewarensis** Ord—Ring-billed Gull.

A common migrant. There is a strong probability of this bird breeding in northern Nebraska, especially about the Cherry county lakes, where J. M. Bates, J. S. Hunter, R. H. Wolcott, J. E. Wallace, and F. H. Shoemaker have, in several different seasons, found it to be common throughout the summer, but as yet no one has found a nest. Also recorded in July from along the Niobrara and Elkhorn rivers. Appears in spring about April 1, and lingers in fall to October.

58. **Larus atricilla** Linnaeus—Laughing Gull.

A rare summer visitant, straggling up the Mississippi valley from the Gulf coast, where it breeds. Recorded by F. W. Powell, from Alda, in July, 1880, and by L. Skow, from Omaha.

59. **Larus franklinii** Swainson and Richardson—Franklin Gull.

An abundant migrant, passing in large numbers from the middle of April to the end of May, and again in October. May be found in the state during the entire summer, but not known to breed.

60. **Larus philadelphia** (Ord)—Bonaparte Gull.

An uncommon migrant, breeding north of the United States. The only records for this gull are from Salt lake, west of Lincoln, where it has been taken a number of times—on Oct. 28, 1895; Nov. 3, 1896; May 6, 1899; Sept. 29, 1900.

62. **Xema sabinii** (Sabine)—Sabine Gull.

Rare winter visitant. An immature specimen of this northern gull was captured from a flock circling about an electric light at Beatrice, Sept. 2, 1899, by Swenk, and a little later, on the 30th of the same month, another specimen, also immature, was shot at Salt lake, near Lincoln, by M. A. Carriker, Jr. The latter specimen is now in the University collection. This gull has generally been considered quite rare, but it has been taken a number of times in Colorado and once in Kansas, and may prove commoner than is generally believed.

64. **Sterna caspia** Pallas—Caspian Tern.

Our only record is of a specimen shot at Salt lake, near Lincoln, May 5, 1893, by F. L. Riser, and now in the Wesleyan University collection. Though its breeding range would include our state, it is probably only a migrant here. The Royal Tern, 65. *Sterna maxima* Boddaert, though a southern breeder, wanders in summer up the Mississippi valley even to the Great Lakes, so is likely to occur in our state as a straggler.

69. ***Sterna forsteri** Nuttall—Forster Tern.

A very common migrant over the state, and breeds abundantly throughout the lake region of Cherry county, but not recorded breeding elsewhere in Nebraska. Arrives about the middle of April and departs early in October.

70. **Sterna hirundo** Linnaeus—Common Tern.

A rare migrant. Has been taken at Omaha, West Point, and Lincoln, at the latter locality several times. It has been taken in Kansas and Wyoming also. Aughey does not record this species, but he does the Arctic Tern, 71. *Sterna paradisæa* Bruennich, of which he states that a few were seen in Dixon county in May, 1866. But as the specimens are not stated to have been shot and as *paradisæa* is so similar to *hirundo*, which he does not mention, the chances for a misidentification are too great to warrant the continued inclusion of *paradisæa*

in our list. It has, however, been taken in Colorado twice, and it is very likely to eventually be taken here also.

74. *Sterna antillarum (Lesson)—Least Tern.

A common migrant, and not a rare breeder, especially in northeastern Nebraska. Aughey found young birds along the Missouri in Dixon county in July, 1866, and also records it from Cedar county in August and from Lancaster and Sarpy counties in June. L. Skow found it breeding at Cut-off lake near Omaha, in the summer of 1893. Wilson Tout found five nests on a basin near York during the summers of 1896 and 1897, and Swenk found it common and breeding in July, 1903 on the sandbars of the Niobrara from Badger to its mouth. Numerous migration records from West Point, Omaha, Peru, and Lincoln.

77. *Hydrochelidon nigra surinamensis (Gmelin)—Black Tern.

An abundant migrant and rather common breeder in suitable localities over the state; in the lakes of Cherry county it breeds in great numbers. Arrives late in April and departs by the middle of October.

EXTRALIMITAL: Three species of gulls included in the above key, viz.: 40. *Rissa tridactyla* (Linnaeus)—Kittiwake, 42. *Larus glaucus* Brunnich—Glaucous Gull, and 43. *Larus leucopterus* Faber—Iceland Gull; are northern species which are not known from Nebraska, but which winter regularly south to the Great Lakes and even farther, so may straggle to our state; especially is this true of the Kittiwake which has straggled even to Wyoming and Colorado. The California Gull, 53. *Larus californicus* Lawrence, has never been taken in Nebraska so far as known, but has been taken a few times in Colorado and once even in western Kansas, so may be reasonably expected as a straggler here also.

Order III. STEGANOPODES—Totipalmate Swimmers

A. Upper mandible not hooked at tip; neck very long; plumage dark. . . . . **Anhingidæ.**
A. Upper mandible hooked at tip. . . . . (B)
B. Tail 14 to 20 inches long, forked for half its length; lores feathered . . . . . **Fregatidæ.**
B. Tail 5 to 10 inches long, not forked; lores bare. . . . . (C)
C. Bill under 4 inches in length, its pouch moderate; plumage in adult mostly black. . . . . **Phalacrocoracidæ.**
C. Bill 8 to 15 inches long, its pouch enormous; plumage in adult mostly white. . . . . **Pelecanidæ.**

Family **ANHINGIDÆ**—Anhingas

[The first two families included above are represented each by a single species in North America. To the first belongs 118. *Anhinga anhinga* (Linnaeus), the Anhinga or Snake Bird of the southern swamps, which occurs up the Mississippi valley to Kansas and southern Illinois, and which was included in Bruner's list as a Nebraska bird on the authority of a speci-

men shot supposedly near Omaha, and mounted by F. J. Brezee at that place. It has since developed, however, that the bird may have been secured either in Iowa or Missouri, and unless it can be definitely determined where the specimen came from this species must be excluded from our list.]

Family FREGATIDÆ—Frigate Birds

[The second family is represented by 128. *Fregata aquila* (Linnaeus), the Frigate Bird or Man-o'-War Bird, a species of tropical and subtropical oceans which because of its extraordinary powers of flight occasionally strays inland into temperate regions, and has been recorded from Texas, Kansas, Ohio, and Wisconsin. In the spring of 1884 Bruner saw a bird near West Point which he took to be this species, and a later oceanic acquaintance with it has convinced him of the correctness of the identification. But in view of the unusual nature of the record and the lack of a specimen it is not given full standing in the list.]

Family PHALACROCORACIDÆ—Cormorants

1. Pouch orange, white at base; wing under 11 inches; young with belly black. . . . . **Mexican Cormorant.**
1. Pouch wholly orange; wing over 11 inches; young with belly brown. .(2)
   2. Wing 12 to 13 inches long, tail 6¼, bill 2¼; color browner . . . . . **Double-crested Cormorant.**
   2. Wing 11¼ to 12½ inches long, tail 5½, bill 2 1/10; color blacker . . . . . **Florida Cormorant.**

120. **Phalacrocorax dilophus** (Swainson and Richardson)—Double-crested Cormorant.

A not common migrant. West Point, Omaha, Lincoln, Nebraska City, York, Beatrice, Neligh, Cherry county, etc. April, and October and November. Breeds from northern states northward.

[The Florida Cormorant, 120a. *P. d. floridanus* (Audubon) has been reported several times from Nebraska, but all the specimens at present available are referable to *dilophus*. However birds occur which are decidedly smaller than average *dilophus*, and since *floridanus* has been found north to southern Illinois as a breeder, it is thought best to leave its status an open question for the present. The Mexican Cormorant, 121. *Phalacrocorax mexicanus* (Brandt), reported by Bruner, was not seen by him personally, but included in his list on the statement of a friend, who probably had seen a specimen of the common species. It has, however, been found north to southern Illinois and Kansas, and may straggle to Nebraska.]

Family PELICANIDÆ—Pelicans

1. Plumage white, primaries black; crown brownish in young; tarsus over 3½ inches. . . . . **White Pelican.**
1. Plumage gray above, brownish below, head white, in summer hind neck brown; young brownish, white below; tarsus under 3½ inches. . . . . **Brown Pelican.**

125. **Pelecanus erythrorhynchos** Gmelin—White Pelican.

A common migrant throughout the state, breeding from northern states northward. Seen from late in March or early in April to early in May and from late in September to the end of October. Three were seen by Wolcott on Dewey lake, Cherry county, daily during a visit there from May 28 to June 8, 1903.

126. **Pelecanus occidentalis** (Linnaeus)—Brown Pelican.

Rare; a subtropical species which has strayed north to Illinois and Wyoming as well as to Nebraska. One definite record, a male taken at St. Paul, Howard county, Oct. 10, 1885, and reported by D. H. Talbot. L. Skow reports having seen "fragments of six specimens in a hog-pen where they had been thrown by the man who shot them" at Honey Creek lake near Omaha, in spring, but there is considerable chance for error in this record.

Order IV. ANSERES

Family ANATIDÆ—Ducks, Geese, and Swans

1. Neck as long as body; tarsus 4 inches or more; wing 20 inches or more long; adult entirely white; the young dirty grayish white. . .(2)
1. Neck shorter than the body; tarsus under 4 inches long. . . . . (3)
   2. Bare skin in front of eye marked with yellowish; back end of nostril much nearer tip of bill than to eye . . . . . **Whistling Swan.**
   2. Bare skin in front of eye without yellow; back end of nostril about midway from eye to tip of bill. . . . . **Trumpeter Swan.**
3. Tarsus, 2 to 4 inches long and longer than middle toe without claw; front of tarsus with rounded scales instead of square scutellæ. . . . . (4)
3. Tarsus not over 2 inches long and shorter than the middle toe without claw; front of tarsus with distinct scutellæ. . . . . (11)
   4. Serrations on the cutting edge of the upper mandible visible from the side for more than half length of bill; bill and feet pale . . . .(5)
   4. Serrations scarcely visible from the side at all; if visible then only at the base; bill, feet, and portions of the head black. . . . . (8)
5. Depth of bill at base about ½ the length of culmen; forehead white in mature bird. . . . . **White-fronted Goose.**
5. Depth of bill at base much greater than ½ the length of culmen. . . . (6)
   6. General plumage gray, grayish brown, or brown without conspicuous white margins to wing-coverts. . . . . **Blue Goose.**
   6. General plumage of adult white; young grayish brown with the wing-coverts widely margined with white. . . . . (7)
7. Length 23 to 28 inches, middle toe 2 to 2½ inches. . . **Lesser Snow Goose.**
7. Length 30 to 38 inches; middle toe 2⅗ to 2⅘ inches **Greater Snow Goose.**
   8. Head black; neck at sides and in front white streaked; belly white. . . . . **Brant.**
   8. Head partly white. . . . . (9)
9. Lower parts deep grayish brown; white cheek patches generally sepa-

rated by black throat stripe or mottling. . . . . **Cackling Goose.**

9. Lower parts light brownish gray, fading gradually into white on anal region; white cheek patches usually confluent on throat. . . . . (10)
10. Larger, 35 to 43 inches long. . . . . **Canada Goose.**
10. Smaller, 25 to 34 inches long. . . . . **Hutchins Goose.**

11. Bill nearly cylindrical, about as wide as high throughout; head always more or less crested . . . . . (12)

11. Bill always wider than high near the tip; head rarely crested . . . . (14)
12. Smaller; wing 7 to 8¼ inches long; crest high and flattened sidewise. . . . . **Hooded Merganser.**
12. Larger; 8½ to 11½ inches long; crest inconspicuous. . . . . (13)

13. Wing about 10½ inches long; frontal feathers extending beyond those on side of bill. . . . . **American Merganser.**

13. Wing about 9 inches long; frontal feathers not extending beyond those on side of bill. . . . . **Red-breasted Merganser.**
14. Hind toe with a rounded membranous lobe. . . . . (15)
14. Hind toe without a lobe-like border. . . . . (27)

15. Wing 7 inches or less in length. . . . . (16)

15. Wing over 7 inches long. . . . . (17)
16. Upper tail-coverts very short; bill broad; tail flat. **Ruddy Duck.**
16. Upper tail-coverts about half as long as tail; head fluffy. . . . . **Buffle-head.**

17. Bill appendaged with a lobe at base formed of skin of cheeks; culmen about one inch long. . . . . **Harlequin Duck.**
17. Bill bulging at base; nail large and so united with the bill as to give the nail a very indistinct outline . . . . . (18)
17. Bill of the usual duck form. . . . . (20)
18. Wing 10½ inches long or more; a white wing patch in both sexes. . . . . **White-winged Scoter.**
18. Wing less than 10½ inches long. . . . . (19)
19. Feathers on the culmen reaching forward as far as those on sides of upper mandible. . . . . **American Scoter.**
19. Feathers on the culmen reaching about an inch farther forward than those on side of upper mandible. . . . . **Surf Scoter.**
20. Tail pointed (over 6 inches long, male; about 3 inches long, female;) bill black and orange, nostril within less than ¼ inch of frontal feathers. . . . . **Old-squaw Duck.**
20. Tail not pointed; nostril about ½ inch from frontal feathers . . (21)
21. Bill high at base (over half as high as long); under tail-coverts white (22)
21. Bill lower at base; under tail-coverts dark. . . . . (23)
22. Male with the gloss of the dark head and throat green; head of female brown. . . . . **Golden-eye.**
22. Male with the gloss of the dark head and throat purple; head of female brown . . . . . **Barrow Golden-eye.**
23. Bill decidedly wider near tip than at base. . . . . (24)
23. Bill but little if any wider at tip than at base. . . . . (26)

24. Male with an orange ring around neck; speculum brownish gray; female chiefly brown. . . . . **Ring-necked Duck.**
24. Male with white speculum; female with white face. . . . . (25)
25. Length 18 to 20 inches; wing over 8¼ inches long. . . . . **Scaup Duck.**
25. Length 15 to 16½ inches wing under 8¼ inches long. . **Lesser Scaup Duck.**
26. Bill about half as wide as the length of the culmen . . **Red-head.**
26. Bill about half as wide as long. . . . . **Canvas-back.**
27. Bill decidedly broadened toward tip, being nearly twice as wide here as at base. . . . . **Shoveller.**
27. Bill but little if any widened toward tip. . . . . (28)
28. Head conspicuously crested; crown green with purple reflections; throat white. . . . . **Wood Duck.**
28. Head not crested. . . . . (29)
29. Central tail feathers over 7 inches long (male) or broad and sharp-pointed (female); neck unusually long. . . . . **Pintail.**
29. Tail and neck not especially lengthened. . . . . (30)
30. Bill decidedly shorter than the head; belly white. . . . . (31)
30. Bill about as long as head, or longer. . . . . (32)
31. Head and throat mainly buffy, finely barred with black. . . . . **Baldpate.**
31. Head and throat with much brown or reddish brown **European Widgeon.**
32. Wing less than 8½ inches long . . . . . (33)
32. Wing over 9½ inches long. . . . . (35)
33. Wing-coverts leaden gray without blue. . . . . **Green-winged Teal.**
33. Wing-coverts sky blue. . . . . (34)
34. Culmen usually more than 1⅜ inches; head, neck and lower parts uniform rich cinnamon brown (male); female slightly ruddier than same sex of Blue-winged. . . . . **Cinnamon Teal.**
34. Culmen generally less than 1⅜ inches; head and neck dull plumbeous, with a large crescent-shaped white patch in front of eye; lower part pale chestnut, spotted with black (male); head and neck streaked with dusky. . . . . **Blue-winged Teal.**
35. Speculum white or grayish white. . . . . **Gadwall.**
35. Speculum a rich purple with a black border. . . . . (36)
36. Speculum bordered at both ends with narrow black and white bands. . . . . **Mallard.**
36. Speculum with only a black border, seldom with any white. . (37)
37. Crown without paler margins; throat usually without markings; legs olivaceous brown; bill greenish black, dusky olive, or olive-green. . . . . **Black Duck.**
37. Crown edged with buff or gray; throat spotted; legs red; bill yellow . . . . . **Red-legged Black Duck.**
37. Similar to the last but lighter colored and with small black spot at lower edge of upper mandible at base. . . . . **Mottled Duck.**

129. **Merganser americanus** (Cassin)—American Merganser.

A regular, and in some localities, common, migrant; early in spring and late in fall. Breeds from Minnesota northward.

130. **Merganser serrator** (Linnaeus)—Red-breasted Merganser.

A rare migrant, but reported by one or more observers nearly every season. Also seen early in spring and late in fall, breeding northward. Bruner reports it as seen on the Platte river in mid-winter.

131. ***Lophodytes cucullatus** (Linnaeus)—Hooded Merganser.

A common migrant, breeding sparingly along the wooded streams in the eastern part of the state and also reported to have bred at least formerly in the timbered canyons of northern Nebraska. A young one was taken by Swenk from a brood of six or seven following the mother on the Blue river at Beatrice in July, 1900, and Bruner also found young on a pond at West Point years ago. A brood of half-grown young were seen at Lincoln Aug. 2, 1900, by J. S. Hunter. Migrates in April and October.

132. ***Anas boschas** Linnaeus—Mallard.

An abundant migrant; coming very early in spring, usually before the first of March, lingering late in fall, and staying all winter where there is open water. Breeds all over the state, more commonly than elsewhere in the sand-hill region. In the collection of August Eiche is a specimen undoubtedly a cross between this and the Black Duck, and another of very large size apparently a cross between the Mallard and some tame duck.

133. **Anas obscura** Gmelin—Black Duck.

An uncommon migrant, not known to breed in the state. It is an abundant duck in eastern United States and Nebraska lies at the westward limit of its range. Reported from Omaha, Lincoln, and Cherry county. Migrates about the same time as the Mallard. All specimens accessible are referable to this form and not to the next, which has only recently been recognized, but it is possible that some of the records refer to the latter.

133a. **Anas obscura rubripes** Brewster—Red-legged Black Duck.

There is no definite record of this duck for the state, but Bruner is inclined to believe, from notes made at the time, that the single observation by himself of the Black Duck at West Point, a number of years ago, should refer to this subspecies.]

135. ***Chaulelasmus streperus** (Linnaeus)—Gadwall.

A common migrant, seen from the middle of March to the middle of April, and from the middle of October to the middle of November. Also a frequent breeder about the lakes of the sand-hill region, nests and young having been taken by Bruner in Holt county and by Wolcott in Cherry county.

136. **Mareca penelope** (Linnaeus)—European Widgeon.

Of this European bird, of which stragglers have been taken from time to time in various parts of this country, there is one valid record for Nebraska, a single specimen having been taken by Bruner at West Point years ago.

137. **Mareca americana** (Gmelin)—American Widgeon; Baldpate.

A common migrant, found from about March 10 to the end of April and from the middle of September to the middle of November. It is seen, though in limited numbers, during the whole summer about the lakes of the sand-hill region and probably breeds there.

139. ***Nettion carolinensis** (Gmelin)—Green-winged Teal.

An abundant migrant, coming early in spring, about the first of March, remaining till the end of April, and here again in fall from early in September to the end of November. It is occasionally seen in summer and it has been noted by observers in all parts of the state as wintering regularly wherever there is open water. It breeds chiefly north of the United States, and must be looked upon as only an accidental breeder in Nebraska. But in the latter part of June, 1902, Wolcott observed, at Dewey lake, Cherry county, a pair which was undoubtedly breeding; they were observed on several occasions at a locality exactly suited to their nesting, and the actions of the birds showed unmistakable evidences of the presence of a nest, but the character of the cover was such that although a careful search was made, it could not be found.

140. ***Querquedula discors** (Linnaeus)—Blue-winged Teal.

An abundant migrant and common summer resident. Arrives usually in the latter part of March and departs by the first of November. It breeds sparingly in southeastern Nebraska, more commonly about ponds and marshes farther west and north, clear to the western boundary, and is an abundant breeder in the sand-hill region, every pond or marsh, no matter how small, having one or more pairs located in its vicinity.

141. **Querquedula cyanoptera** (Vieillot)—Cinnamon Teal.

An occasional migrant only, its normal range being from the Rocky mountains westward. Reported from Omaha, West Point, Niobrara, Lincoln, Grand Island, and Cherry county; dates—Omaha, April 10, 1896, and April 12, 1897, and Lincoln, April 11, 1896.

142. ***Spatula clypeata** (Linnaeus)—Shoveller.

A very common migrant and common summer resident. Arrives early in March and stays till the middle of November. Breeds commonly in the sand-hill region and sparingly in various other parts of the state.

143. ***Dafila acuta** (Linnaeus)—Pintail.

An abundant migrant, the first duck to appear in the spring and one of the last to pass in the fall. Does not linger, the advance guard appearing with the first warm days in February, and nearly all having gone on by the first of April to their breeding grounds in the states to the northward. A few breed in Cherry county, where a brood of half-grown young was seen by Wolcott on Hay lake, June 17, 1902.

144. *Aix sponsa (Linnaeus)—Wood Duck.

Largely confined to the eastern half of the state; formerly common, now somewhat rare. Breeds in suitable localities throughout eastern Nebraska. Arrives in spring early in April and last seen about the middle of October.

146. Aythya americana (Eyton)—Red-head.

An abundant migrant, arriving early in March, remaining till the first of May, and here again throughout October and November. Although Nebraska is at the southern limit of its breeding range, a considerable number stay regularly in the sand-hill region and doubtless breed.

147. *Aythya vallisneria (Wilson)—Canvas-back.

Rather an irregular migrant, some years abundant, others less common. Found in spring from late in February to the middle of April, and in the fall during October and November. Breeds chiefly from North Dakota northward, but a few are seen in summer about the lakes of Cherry county, where they are known to breed. A nest with eggs advanced in incubation was found near Cody, in northern Cherry county, by I. S. Trostler in the latter part of June, 1895, and J. M. Bates reports the Canvas-back as breeding at Irwin in 1896 and 1897, and at Hackberry lake in 1897.

148. Aythya marila (Linnaeus)—Scaup Duck; Blue-bill.

A rare migrant, though formerly more common, and most frequent along the Missouri river. Omaha, Lincoln, Peru, West Point, Neligh, Cherry county. Breeds to the northward.

149. Aythya affinis (Eyton)—Lesser Scaup; Little Blue-bill.

An abundant migrant, seen from the middle of March even to the latter part of May and from early in October to the end of November. Breeds from North Dakota northward, but a few remain about the lakes of Cherry county all summer and it may breed there.

150. Aythya collaris (Donovan)—Ring-necked Duck.

A common migrant, being found at the same time as the preceding. It is present in Cherry county throughout the summer and may breed.

151. Clangula clangula americana (Bonaparte)—Golden-eye.

A resident from the northen boundary of the United States northward, only coming down to us during the winter, when it is not uncommon, especially on the Platte and Missouri rivers. Seen from the middle of November to the end of March, sometimes lingering to the end of April.

152. Clangula islandica (Gmelin)—Rocky Mountain or Barrow Golden-eye.

A rare winter visitant in eastern Nebraska, more numerous west-

ward. Reported from Omaha, South Bend, Long Pine, and Grand Island.

153. **Charitonetta albeola** (Linnaeus)—Buffle-head.

A common migrant, present from about the middle of March to the middle of April and during October and November. Breeds to the northward.

154. **Harelda hyemalis** (Linnaeus)—Old-squaw Duck.

A regular, but not common winter visitor, specimens being taken every season on the Missouri river in the vicinity of Omaha. Merritt Cary records the taking of a female near Neligh in October, 1898. Breeds far north, chiefly beyond the limit of trees.

155. **Histrionicus histrionicus** (Linnaeus)—Harlequin Duck.

Of this northern duck, there are two definite records for Nekraska, I. S. Trostler recording the taking of two specimens on the Missouri river at Omaha, Sept. 16, 1893, and of another on Florence lake near Omaha, Sept. 19, 1895. Bruner also notes the securing of a specimen in the Omaha market several years ago from among birds said to have been shot in Burt county.

163. **Oidemia americana** Swainson—American Scoter.

The first record for the state was based on a female specimen taken on Salt lake, near Lincoln, Sept. 28, 1895, by August Eiche and now in his collection. Specimens have since been taken at Omaha and it can apparently be considered an irregular winter visitant, to be looked for in flocks on the Platte and Missouri rivers.

165. **Oidemia deglandi** Bonaparte—White-winged Scoter.

This duck is also a winter visitant to the larger rivers and lakes in the state, being the most common of the scoters. Bruner in his Notes on Nebraska Birds refers to an indefinite record from Tekamah or some point in the vicinity. The first definite record is by August Eiche, based on a specimen secured Oct. 14, 1899, on Salt lake near Lincoln; he also reported a flock Nov. 13 of the same year. J. E. Wallace records the taking of a specimen at Cut-off lake, near Omaha, Dec. 8, 1900, and the species has been seen there several times since. It must be considered a regular and not very rare winter visitor.

166. **Oidemia perspicillata** (Linnaeus)—Surf Scoter.

Also a winter visitant to the larger bodies of water in the state, but apparently not so common as the last. Bruner refers to three birds probably of this species, shot on Salt lake, near Lincoln, in Nov., 1895, by university students, which were not preserved; but here again August Eiche has the honor of the first definite record for the state, having a male in his collection taken at the same place, Oct. 7, 1896. It has since been taken at Omaha and is probably a regular winter visitor.

167. *Erismatura jamaicensis (Gmelin)—Ruddy Duck.

A very common migrant and a common breeder on the lakes of the sand-hill region. Arrives about the middle of March and lingers in the southeastern part of the state till the end of May; in the fall migrates during October and November.

169. Chen hyperborea (Pallas)—Lesser Snow Goose.

A very common migrant, breeding far north. Migration dates from about March 1 to the first of May, and from the latter part of September to the middle of November. Usually called "Brant" in this state.

169a. Chen hyperborea nivalis (Forster)—Greater Snow Goose.

A rather rare migrant, occurring at about the same time as the last. Recorded from Omaha, West Point, South Bend, Lincoln, and Waco.

169.1. Chen caerulescens (Linnaeus)—Blue Goose.

Formerly seen alone, according to Bruner, in small flocks, though never common; now rather rare and only seen flying with the snow geese. Breeds about Hudson's bay.

171a. Anser albifrons gambeli (Hartlaub)—White-fronted Goose.

A not uncommon migrant, seen from early in March to the middle of April and from the end of September to the middle of November. Breeds in the far north.

172. *Branta canadensis (Linnaeus)—Canada Goose.

An abundant migrant; from as early in February as the ice breaks up even to the middle of May, and from the middle of October to late in the fall. Also found on the Platte and Missouri rivers during all ordinary winters. Formerly bred about the lakes in the sand-hill region and on the islands of the Platte and Missouri rivers, and a few are found breeding there still.

172a. Branta canadensis hutchinsii (Richardson)—Hutchins Goose.

A common migrant, at the same time as the preceding but appearing a little later in the spring. Breeds in Alaska.

173. Branta bernicla glaucogastra (Brehm)—Brant.

The only definite record of this goose for the state is reported by I. S. Trostler who saw three that were killed on the Missouri river at Omaha, Nov. 9, 1895. L. Skow says there is, or was, a specimen in an Omaha gun store, said to have been shot on the Platte river. Breeds within the Arctic circle and seen chiefly along the Atlantic coast.

180. Olor columbianus (Ord)—Whistling Swan.

A rare migrant now, formerly more common, and more numerous than the next. Seen from the middle of March to the middle of April and late in September and in October. Breeds far north.

181. ***Olor buccinator** (Richardson)—Trumpeter Swan.

Now rare and apparently never known to be common. Recorded from localities along the Platte river, Omaha, North Platte, and Grant and Cherry counties. J. M. Bates reports this species as having formerly bred on Watt's lake, Cherry county, and it probably was once a breeder about many of the lakes of the sand-hill region.

EXTRALIMITAL: 134a. *Anas fulvigula maculosa* (Sennett), the Mottled Duck, breeds from Texas to middle Kansas and may reach southern Nebraska. 172c. *Branta canadensis minima* Ridgway, the Cackling Goose of the northwest coast, has been taken in the interior as far east as Wisconsin and may reach Nebraska during migrations.

ORDER V. HERODIONES—Herons, Storks, Ibises, Etc.

A. Sides of upper mandible with a deep narrow groove. Bill slender, nearly round, not widened at end, and decurved throughout . . . . . **Ibidae.**

A. Sides of upper mandible without a groove . . . . . (B)

B. Middle toe not pectinate, hind toe elevated above others . . . . . **Ciconiidae.**

B. Middle toe pectinate, hind toe on same level with others. . **Ardeidae.**

Family IBIDÆ—Ibises

1. General color white in adult, grayish brown above and white below in young. . . . . **White Ibis.**

1. Chestnut with purplish and greenish reflections in adult; dark brown with greenish reflections on the back in young . . . . . (2)

2. Lores greenish in life; feathers around bill same color as back . . . . . **Glossy Ibis.**

2. Lores red; feathers around bill white. . . . **White-faced Glossy Ibis.**

186. **Plegadis autumnalis** (Hasselquist)—Glossy Ibis.

A specimen taken near Omaha, Bruner thinks at Cut-off lake, is now in the University museum, and there are two specimens in the collection of L. Sessions, of Norfolk, taken at that place. Straggler in summer from the southeast.

187. **Plegadis guarauna** (Linnaeus)—White-faced Glossy Ibis.

A straggler from the south. Two specimens are recorded from Omaha, by I. S. Trostler and L. Skow, one killed near Florence lake, Aug. 19, 1893, and a second near Cut-off lake, Apr. 6, 1897. A specimen was secured years ago, according to Bruner, by Frank Parmalee of Omaha, at Clarks.

EXTRALIMITAL: 184. *Guara alba* (Linnaeus)—The White Ibis is stated to occur casually north to South Dakota and may be looked upon as a probable addition to our fauna sooner or later.

Family CICONIIDÆ—Storks and Wood Ibises

A large white bird, 35 to 45 inches long, with greenish black tail and wing

quills; head and neck mostly naked; bill stout, tapering, the end curved downward. . . . . **Wood Ibis.**

[188. **Tantalus loculator** Linnaeus—Wood Ibis.

While no records are at hand which would warrant us retaining this bird in our Nebraska lists, it has been definitely recorded from states as far north as Wisconsin and as far west as Colorado. Unconfirmed observations by sportsmen of single birds of the above description would point to its having been seen here as well.]

Family **ARDEIDÆ**—Herons, Bitterns, Etc.

1. Outer toe shorter than the inner one; nail on hind toe fully half as long as the toe. . . . . (2)
1. Outer toe as long or longer than the inner one; nail on hind toe less than half as long as its toe. . . . . (3)
   2. Size large, length 24 to 34 inches. . . . . **Bittern.**
   2. Size small, length 13 inches. . . . . **Least Bittern.**
3. Bill slender, fully four times as long as it is high at its base. . . . . (4)
3. Bill rather stout, only about three times as long as it is high at base. . . (9)
   4. General color white during breeding season with "aigrette" plumes on back. . . . . (5)
   4. General color, at least above, blue or brownish slate, the "aigrette" plumes short and gray, or with elongate narrow feathers instead. . . . . (7)
5. Larger; length 40 inches; bill yellow; feet and legs black; back plumes straight. . . . . **American Egret.**
5. Smaller; length 22 to 24 inches. . . . . (6)
   6. Bill, legs, and feet black; plumes recurved. . . . . **Snowy Heron.**
   6. Bill black, legs and feet greenish yellow; tips of primaries bluish. . . . . **Little Blue Heron,** young.
7. Very large, length 45 inches; center of crown white; the occiput provided with elongate plumes; legs blackish (adult); crown black, head not crested (young). . . . . **Great Blue Heron.**
7. Smaller, length from 17 to 26 inches; head feathers forming more or less of a crest. . . . . (8)
   8. Length 17 inches; neck and sides of head purplish chestnut; back and wings greenish washed with bluish gray. . . . . **Green Heron.**
   8. Length 22 to 26 inches; head and neck maroon, rest of plumage slaty blue (adult). . . . . **Little Blue Heron.**
9. Bill less than one-half an inch shorter than tarsus; its top and bottom but slightly convex; crown and back greenish black (adult). Grayish brown streaked with white above; primaries with pale rufous (young) . . . . . **Black-crowned Night Heron.**
9. Bill over one-half an inch shorter than tarsus; its top and bottom decidedly convex; blue-gray, crown and ear-coverts whitish (adult). Crown black, streaked with white; primaries bluish slate (young). . . . . **Yellow-crowned Night Heron.**

190. *Botaurus lentiginosus (Montague)—Bittern.

A common migrant throughout the state, breeding everywhere in suitable localities but much more commonly in the sand-hill region than elsewhere. Migrating during April and late in September and in October, lingering sometimes into December.

191. *Ardetta exilis (Gmelin)—Least Bittern.

A common summer resident in the eastern portion of the state in suitable localities, rare in the sand-hill region, and not so far recorded from the western part of the state. Arrives in the latter part of April or early in May and departs during the latter part of September and in October.

194. *Ardea herodias Linnaeus—Great Blue Heron.

Found along rivers and streams throughout the state, and breeds here and there in appropriate places; more common eastward and especially along the Missouri river, where it nests in colonies in the largest trees of the river bottom.

196. Herodias egretta Gmelin—American Egret.

Of this heron there are four records for the state. Aughey states that he saw a single specimen on the Nemaha in Richardson county in May, 1873. A specimen was killed near Omaha, July 12, 1894, and reported by I. S. Trostler. L. Skow reports it from Nebraska City, and Swenk records seeing one on Cedar creek, near Beatrice, July 12, 1900. A straggler from the south, occurring in southern and eastern Nebraska in summer.

197. *Egretta candidissima Gmelin—Snowy Heron.

An occasional straggler from the south in summer, and a rare, perhaps accidental, breeder. We have several records of its occurrence: Aughey records it from Otoe and Richardson counties; I. S. Trostler from near Fremont, Sept. 4, 1893; Swenk from Fairbury; and one was shot in the Hat creek valley in extreme northwestern Nebraska and the specimen mounted. August Eiche has recorded a nest of this bird at Lincoln, in June, 1895, the female which was shot on the nest being now in his collection (See Proc. N. O. U., II, 96).

200. Florida caerulea Linnaeus—Little Blue Heron.

A straggler from the south in summer, to the southern part of the state. Reported from Butler county, on the Platte river, by a Dr. Peebles, according to Bruner; also observed by Trostler near Omaha June 15, 1897 and Aug. 15, 1903; and a specimen is in the collection of Rees Heaton of Curtis, killed on an artificial lake at that place. Bruner also records a specimen from near Omaha years ago brought to F. J. Brezee to be mounted, but whether killed in Iowa or Nebraska is not known. It has been reported as breeding north of Omaha, on the Iowa side of the Missouri river, but this is probably an error. Possibly some of the records of the preceding species may have referred to the young of this, since at that age it is white.

201. *Butorides virescens Linnaeus—Green Heron.

A very common summer resident in eastern Nebraska, but not reported west of the eastern one-third of the state. Omaha, Peru, West Point, Oakdale, Neligh, Lincoln, Gresham, Beatrice—breeding at all localities. Merritt Cary reports it as an abundant summer resident and breeder at Neligh. Arrives in April, departs late in September or early in October.

202. *Nycticorax nycticorax naevius (Boddaert)—Black-crowned Night Heron.

A common migrant over the greater part of the state, becoming rare in the extreme western portion, and a common breeder here and there in the northern portion of the state and in the sand-hill region. In the latter locality it nests in the rushes about the lakes. Not known to breed south of about the middle portion of the state. Arrives in April, departs late in September and early in October.

203. Nyctanassa violacea (Linnaeus)—Yellow-crowned Night Heron.

A rare straggler from the south in summer. Recorded from Valley by Bruner years ago and an immature male shot on the Blue river near Beatrice by Swenk, July 19, 1901. One was killed at Omaha, on the Iowa side of the Missouri river, May 1, 1892, and recorded by I. S. Trostler who also reports one near Florence lake, Aug. 23, 1903.

ORDER VI. PALUDICOLÆ—Cranes, Rails, Etc.

A. Wing over 15 inches long; hind toe much elevated.....**Gruidæ.**
A. Wing under 10 inches long; hind toe very slightly elevated....**Rallidæ.**

Family GRUIDÆ—Cranes

1. General plumage of adult white; of young more rusty tinged; tarsus 10¾ to 13 inches long.....**Whooping Crane.**
1. General plumage of adult slaty to brownish gray.....(2)
2. Smaller, length 35 inches; tarsus 7½ inches. . .**Little Brown Crane.**
2. Larger, length 44 inches; tarsus 10 inches. . . . .**Sandhill Crane.**

204. Grus americana (Linnaeus)—Whooping Crane.

Formerly a fairly common migrant in the state, now rare, although as late as 1899 reported by Cary as a rather common migrant at Neligh. Occurs from late in March, through April and again in October. May have once bred in the sand-hill region.

205. Grus canadensis (Linnaeus)—Little Brown Crane.

Very rare migrant, breeding far north. Bruner has recorded specimens from West Point and Scribner and L. Skow has reported it from Omaha. Cary reports one killed at Neligh in May, 1895.

206. *Grus mexicana (Mueller)—Sandhill Crane.

Formerly a very abundant migrant and a common breeder in the marshes of the state, still frequently seen in migration and breeding

sparingly in the sand-hill region. Arrives late in March and in April and departs in October.

FAMILY **RALLIDÆ**—RAILS, GALLINULES, AND COOTS

1. Forehead provided with a shield-like, horny extension of the bill; under tail-coverts white. . . . . (2)
1. Forehead without the shield-like, horny extension of bill. . . . . (4)
2. Toes with broad, membranous lobes; slate-colored, with white-tipped secondary quills. . . . . **Coot.**
2. Toes without lobes. . . . . (3)
3. Most of the head and all under parts purplish blue (in the young mottled with white); back olive-green (washed with brownish in the young). . . . . **Purple Gallinule.**
3. Generally slate-colored above, with conspicuous white streaks on the flanks. . . . . **Florida Gallinule.**
4. Bill slender, decurved, 2 or more inches long; upper parts rich olive-brown, streaked with black; 16 to 19 inches long. . . . . **King Rail.**
4. Bill slender, decurved, $1\frac{1}{4}$ to $1\frac{3}{4}$ inches long; upper parts black and grayish brown; 8 to $10\frac{1}{2}$ inches long. . . . . **Virginia Rail.**
4. Bill stout, not decurved, 1 inch or less in length. . . . . (5)
5. Feathers of the back black with broad, buffy borders. . . . . **Yellow Rail.**
5. Back blackish with round, white spots. . . . . **Black Rail.**
5. Olive-brown, streaked with white on back and wings. . . . . **Sora.**

208. ***Rallus elegans** Audubon—KING RAIL.

A summer resident in the eastern third of the state, but not common, arriving early in May and breeding in June. West Point, Elkhorn, Omaha, and Sarpy, Lancaster, and Harlan counties—breeding at Omaha. In the Proc. N. O. U., II, p. 84, J. S. Hunter reports the King Rail from Cherry county but later experience seems to throw doubt on this identification, although since in the Proceedings, I, p. 16, J. M. Bates says this species was reported to him as on Ballard's lake, in the same locality, in September, 1898, its occurrence in the sand-hill region may later be verified.

212. ***Rallus virginianus** Linnaeus—VIRGINIA RAIL.

A common migrant, at times even abundant, and also a common breeder in the northern part of the state and in the sand-hill region, but a rather rare breeder in the southeastern portion of Nebraska. Arrives early in May, leaves about the end of September. Omaha, West Point, Plattsmouth, Lincoln, Gresham, Neligh, and Cherry county—found once breeding at Lincoln, and a common breeder at Neligh and in Cherry county.

214. ***Porzana carolina** (Linnaeus)—CAROLINA RAIL; SORA.

An abundant migrant, and rather common breeder in the eastern part of the state, a rare breeder in the sand-hill region. Same dates as the preceding. West Point, Oakland, Peru, Richardson county,

Lincoln, Gresham, Beatrice, Ponca, Ewing, O'Neill, North Platte, Cherry county; breeding at Omaha, at Neligh, and in Holt county.

215. **Porzana noveboracensis** (Gmelin)—Yellow Rail.

Very rare. Bruner reports it once from Bellevue, and has seen it once, years ago, in the Omaha market. There is a specimen, taken at Norfolk, in the collection of L. Sessions of that place.

216. **Porzana jamaicensis** (Gmelin)—Black Rail.

Rare. Aughey records two, taken in Richardson county, in September, 1873, and Bruner reports it from West Point, and in the Omaha market. It may breed.

218. **Ionornis martinica** (Linnaeus)—Purple Gallinule.

Only recorded once from Nebraska, a specimen being seen by Bruner, at West Point, in June or July of 1884 or 1885. It was during high water; and the bird, seen about a rush-grown, cut-off lake, was approached to within twenty yards or less.

219. ***Gallinula galatea** (Lichtenstein)—Florida Gallinule.

Quite a common but locally distributed summer resident in southeastern Nebraska, rare in sand-hill region. Omaha, Dunbar, Beatrice, North Platte, Cherry county. Reported as a common breeder at Omaha, as breeding at North Platte, and breeding on the one occasion on which it was noted from Cherry county, by Wolcott.

221. ***Fulica americana** Gmelin—Coot.

An abundant migrant, and in the lakes of the sand-hill region an abundant resident; also common as a resident everywhere in the state where reedy sloughs and ponds are found. Arrives during the first half of April and departs in October.

ORDER VII. LIMICOLÆ—Shore Birds

A. Toes with lobed webs on the sides; tarsus much compressed . . . . . **Phalaropodidæ.**
A. Toes not lobed on the sides; tarsus not especially compressed . . . . . (B)
B. Tarsus more than twice as long as middle toe and claw . . . . . **Recurvirostridæ.**
B. Tarsus less than twice as long as middle toe and claw . . . . . (C)
C. Front of tarsus covered with a continuous row of transverse four-sided scales. . . . . (E)
C. Front of tarsus covered with small six-sided irregular scales . . . . . (D)
D. Bill shorter than tarsus. . . . . **Charadriidæ.**
D. Bill longer than tarsus . . . . . **Hæmatopodidae.**
E. Bill slender, with a bluntly rounded tip . . . . . **Scolopacidæ.**
E. Bill stout, with a pointed wedge-shaped tip . . . . . **Aphrizidæ.**

Family PHALAROPODIDÆ—Phalaropes

1. Larger; bill over 1⅛ inches long. . . . . **Wilson Phalarope.**
1. Smaller; bill under 1 inch long . . . . . (2)

2. Bill stout and with a flattened tip; wing more than $4\frac{3}{4}$ inches long. . . . . **Red Phalarope.**
2. Bill quite slender and not flattened at tip, wing less than $4\frac{3}{4}$ inches long. . . . . **Northern Phalarope.**

223. **Phalaropus lobatus** (Linnaeus)—Northern Phalarope.

A rare migrant. Reported by F. W. Powell from Alda in Cooke's Bird Migration in the Mississippi Valley; by I. S. Trostler from Omaha, where a specimen was taken May 6, 1896; and several times at Lincoln, by D. A. Haggard, August Eiche, and J. S. Hunter, in May and from the end of August to the end of October. Breeds far to the north.

224. ***Steganopus tricolor** (Vieillot)—Wilson Phalarope.

An abundant migrant throughout the state and a common breeder in the sand-hill region. Migrates during the latter part of April and the first half of May and during September and early in October. Omaha, Peru, West Point, Fremont, Lincoln, Fullerton, Neligh, Dakota and Dixon counties, North Platte, etc.—migrating; summer resident in Holt county, breeding in Cherry county and reported by J. A. Dickinson as probably breeding at Gresham, May 30, 1896, when two pairs were observed.

EXTRALIMITAL: 222. *Crymophilus fulicarius* (Linnaeus), the Red Phalarope, is a species breeding far to the north and coming south rarely in winter to the northern Mississippi valley. Has been recorded from Illinois, Minnesota, and Wyoming, and it might occur in Nebraska.

Family RECURVIROSTRIDÆ—Avocets and Stilts

1. Bill decidedly curved upward, over 3 inches long; the 3 front toes connected by webs. . . . . **Avocet.**
1. Bill only slightly curved upward, less than 3 inches long; the 2 outer toes only webbed. . . . . **Black-necked Stilt.**

225. ***Recurvirostra americana** Gmelin—Avocet.

A rather common migrant over the state and a frequent breeder in the sand-hill region. Migrates late in April and during May and again during September and October. Omaha, West Point, Richardson county, Lincoln, Wood river, Gresham, etc.; found by Wolcott breeding at Clear lake, Cherry county, in June, 1902.

226. **Himantopus mexicanus** (Mueller)—Black-necked Stilt.

This bird, a southern species, but recorded from Illinois, Minnesota, and Kansas as a straggler, and as breeding in Colorado, has only been observed in Nebraska in the vicinity of Omaha, from where L. Skow and I. S. Trostler record it, the latter giving the following dates: May 10, 1893; May 6, 1894; Apr. 20, 1895; and Oct. 3 and 9, 1894. May possibly breed in southwestern Nebraska.

FAMILY SCOLOPACIDÆ—SNIPES, SANDPIPERS, ETC.

1. Bill long and much decurved; tarsi scaled in front only; reticulate behind. . . . . (2)
1. Bill not strongly decurved; tarsi scutellate both in front and behind . . (3)
2. Bill over 4½ inches long. . . . . **Long-billed Curlew.**
2. Bill under 4½ inches, but over 3 inches long. . . . . **Hudsonian Curlew.**
2. Bill under 3 inches long. . . . . **Eskimo Curlew.**
3. Toes three, the hind toe wanting. . . . . **Sanderling.**
3. Toes four, the hind toe present. . . . . (4)
4. Eyes back of middle of head; bill twice as long as tarsus . . . . . (5)
4. Eyes not back of middle of head; bill not twice as long as tarsus. (6)
5. Crown banded crosswise; axillars not barred; tibiæ entirely feathered. . . . . **Woodcock.**
5. Crown striped lengthwise; axillars barred; joint of tibiæ naked. . . . . **Wilson Snipe.**
6. Front toes with at least one distinct web . . . . . (7)
6. Front toes not distinctly webbed . . . . . (19)
7. Bill slightly curved upward at tip . . . . . (8)
7. Bill straight throughout, or curved slightly downward . . . . . (9)
8. Bill 3½ to 5½ inches long; rump and upper tail-coverts barred with brown. . . . . **Marbled Godwit.**
8. Bill 2¾ to 3½ inches long; rump and tail black, with white upper tail-coverts. . . . . **Hudsonian Godwit.**
9. Axillars barred with black . . . . . (10)
9. Axillars not barred. . . . . (13)
10. Legs yellow . . . . . (11)
10. Legs blackish. . . . . (12)
11. Wing over 7½ inches long . . . . . **Greater Yellow-legs.**
11. Wing under 7 inches long . . . . . **Yellow-legs.**
12. Bill averaging under 2½ inches long . . . . . **Dowitcher.**
12. Bill averaging over 2½ inches long . . . . . **Long-billed Dowitcher.**
13. Bill over 2 inches long . . . . . **Western Willet.**
13. Bill under 2 inches long . . . . . (14)
14. Tail with cross-bars . . . . . (15)
14. Tail without cross-bars . . . . . (17)
15. Wing over 5¾ inches long . . . . . **Bartramian Sandpiper.**
15. Wing under 5¾ inches long . . . . . (16)
16. Upper parts brownish gray, barred with blackish; under parts spotted . . . . . **Spotted Sandpiper.**
16. Upper parts fuscous, spotted with white . . . . **Solitary Sandpiper.**
16. Upper parts fuscous, spotted with buffy, inner margin of outer primary, speckled black and white . . . . **Western Solitary Sandpiper.**
17. Bill over $1\frac{1}{10}$ inches long . . . . . **Stilt Sandpiper.**
17. Bill under $1\frac{1}{10}$ inches long . . . . . (18)
18. Bill ⅗ to ⅘ of an inch long . . . . . **Semipalmated Sandpiper.**
18. Bill ⅘ of an inch to 1⅕ inches long . . . . . **Western Sandpiper.**

19. Inner web of outer primary speckled with blackish . . . . . **Buff-breasted Sandpiper.**

19. Inner web of outer primary not speckled . . . . . (20)

20. Wing over 6 inches long . . . . . **Knot.**

20. Wing under 6 inches long . . . . . (21)

21. Bill curved downward . . . . . **Red-backed Sandpiper.**

21. Bill straight . . . . . (22)

22. Bill over 1¼ inches long . . . . . **Purple Sandpiper.**

22. Bill under 1¼ inches long . . . . . (23)

23. Wing under 4 inches long . . . . . **Least Sandpiper.**

23. Wing over 4 inches long . . . . . (24)

24. Upper tail-coverts white . . . . . **White-rumped Sandpiper.**

24. Upper tail-coverts black . . . . . **Pectoral Sandpiper.**

24. Upper tail-coverts fuscous . . . . . **Baird Sandpiper.**

228. ***Philohela minor** (Gmelin)—Woodcock.

A rare migrant in the extreme eastern part of the state, breeding occasionally along the bottomlands of the Missouri river and other wooded streams flowing into it. Omaha, West Point, and Sarpy and Otoe counties; stragglers reported from Beatrice and Lincoln, and even as far as Neligh. Arrives late in March and leaves in October. May winter in mild seasons.

230. **Gallinago delicata** (Ord)—Wilson Snipe.

A very common migrant throughout the state and found in winter about springs in Holt, Cherry, Dawes, and Sioux counties, and along the Missouri river. It may possibly breed in northern Nebraska, as is claimed by some ranchmen, since it is reported staying all summer at North Platte by M. K. Barnum, was seen in Cherry county by Trostler late in June, 1895, and in the same region in June, 1900, by J. S. Hunter. Migrates during the latter part of April and in May, and again from the end of September to the middle of November.

231. **Macrorhamphus griseus** (Gmelin)—Dowitcher.

Specimens which were referred to this species have been reported from West Point, Lincoln, and Omaha, by Bruner; from Omaha by Skow and Trostler, April 30, 1893 and Sept. 15, 1894; from Neligh by Cary, May 16, 1899; from Cherry county by Bates; and from Lincoln by August Eiche, in whose collection is a specimen with a bill only 2.25 inches long. Aughey's records of this species probably refer to the next. It is claimed by many authorities that the Dowitcher is only found in the eastern states and that all western specimens represent simply variations of the Long-billed Dowitcher. So long as the authorities are not unanimous these records are allowed to stand for what they are worth. The two species differ in color in the breeding plumage but in the winter plumage are indistinguishable.

232. **Macrorhamphus scolopaceus** (Say)—Long-billed Dowitcher.

An irregular migrant, sometimes common. Aughey reported it years ago under the name *griseus* as abundant. Found from the middle of April to the middle of May and throughout September and October and even into November. Dixon, Wayne, Nemaha, and Sarpy counties, Omaha, West Point, Lincoln, Cherry county, North Platte. Breeds in British America.

233. **Micropalama himantopus** (Bonaparte)—Stilt Sandpiper.

Usually considered a rare migrant, but has been seen at Lincoln at times in large numbers, in May and again in September and October. Omaha, West Point, Lincoln, Neligh, Holt county, Long Pine, Cherry county. Breeds far north.

234. **Tringa canutus** Linnaeus—Knot.

Rare. Aughey records a specimen from Brownville, Oct., 1874; Trostler one from Omaha, Sept. 30, 1893; J. S. Hunter one from Lincoln, May 16, 1896; and August Eiche has a specimen in his collection taken at Lincoln, Aug. 27, 1896. Breeds in Arctic regions.

239. **Actodromas maculata** (Vieillot)—Pectoral Sandpiper.

A common migrant, seen late in April and in May and in September and October. Frequents fields and pastures and often called "Grass Snipe." West Point, Lincoln, Peru, Omaha, Gresham, North Platte, Cherry county. Breeds far north.

240. **Actodromas fuscicollis** (Vieillot)—White-rumped Sandpiper.

A rather common migrant, though not so numerous as the preceding, and not so frequently reported. Seen at about the same time though more inclined to linger even to June. Omaha, Peru, Lincoln, Fairbury, Cherry county. Also a breeder only to the north.

241. **Actodromas bairdii** Coues—Baird Sandpiper.

An abundant migrant, frequently lingering all summer, but only breeding far to the north. The earliest sandpiper to appear in the spring, sometimes as early as the middle of March, always by the first of April, remaining in large flocks till the end of May, and here again in fall migration from the middle of August till the end of October. Throughout the state.

242. **Actodromas minutilla** (Vieillot)—Least Sandpiper.

An abundant migrant, also lingering, especially in northern Nebraska, throughout the summer. In June and early in July 1902, Swenk found representatives of several species of shore birds along the Niobrara river; examination of sexual organs showed no evidence of development except in this species, of which two pairs were seen about a small pond acting as if breeding, and the ovaries of which showed a marked development. Its usual breeding grounds are in British America; Hatch claims that it also breeds in Minnesota. Migrating from the end of March or first of April to the end of May, and from early in August to November. Throughout the state.

243a. **Pelidna alpina sakhalina** (Vieillot)—Red-backed Sandpiper.

Rare. Recorded only from Omaha, where L. Skow took a specimen May 12, 1895, and from Lincoln, where specimens have been taken by D. A. Haggard; by J. S. Hunter, May 16, May 30, and Nov. 7, 1896; and by August Eiche, May 22, 1899. Breeds far north.

246. **Ereunetes pusillus** (Linnaeus)—Semipalmated Sandpiper.

A common migrant, usually in company with the Least Sandpiper, and breeding in high latitudes. Reported from localities throughout the state. Specimens in the collection of F. L. Riser, taken at Lincoln are dated June 8 and July 8, 1897.

[247. **Ereunetes occidentalis** Lawrence—Western Sandpiper.

Reported once from Omaha by L. Skow. Though Nebraska comes within the accepted range of the species, the identification does not seem to be entirely beyond question.]

248. **Calidris arenaria** (Linnaeus)—Sanderling.

An irregular migrant, sometimes numerous. Reported from West Point and Lincoln by Bruner, from Omaha by Trostler and Skow, and from North Loup by D. H. Talbot; A. R. Graves took a specimen at Alliance, April 6, 1892, and specimens from Lincoln are in the collection of August Eiche, dated May 21, 1895, Aug. 22, 1896, and Oct. 4, 1898. Chiefly maritime.

249. **Limosa fedoa** (Linnaeus)—Marbled Godwit.

A common migrant, found from the middle of April to the middle of May, and from the end of August to early in October. West Point, Omaha, Lincoln, Ashland, Gresham, and Cherry and Holt counties. Aughey also reports it from Cedar and Wayne counties, and says it breeds in Nebraska, though so far as we know no nest was ever found within our limits. His statement is probably the basis for the inclusion of this state in the breeding range as given by various authorities, but since the bird is known to have bred in Iowa, Minnesota, and the Dakotas, and has been frequently seen here in summer, it almost certainly breeds in Nebraska also.

251. **Limosa hæmastica** (Linnaeus)—Hudsonian Godwit.

A rare migrant, and reported by but a few observers. Recorded from West Point, Oakland, Lincoln, and Holt county, by Bruner; J. S. Hunter and August Eiche have collected specimens nearly every year in May at the lake near Lincoln. Breeds far north.

254. **Totanus melanoleucus** (Gmelin)—Greater Yellow-legs.

A common migrant, from early in April to the middle of May and from the end of August to November. Recorded from various localities west to Cherry county and North Platte. Reported in Bruner's Notes on Nebraska Birds as breeding at Peru and in Holt county. The former was probably an error, but Bruner has seen this species in pairs in Holt county in summer, and since it has been

known to breed in northern Illinois and in Minnesota, it is not unlikely that it breeds occasionally in Nebraska.

255. **Totanus flavipes** (Gmelin)—Yellow-legs.

An abundant migrant; seen also all summer, but there is no evidence that it breeds. Seen at the same time as the last species.

256. ***Helodromas solitarius** (Wilson)—Solitary Sandpiper.

A common migrant; here in May and in September, and to be met with chiefly along creeks and small streams. Recorded from all parts of the state. Reported from Cherry county by J. M. Bates, and from Neligh by Merritt Cary as frequently and regularly seen in summer though no nest has been taken by either; Aughey, however, records seeing the young in Dakota county in August, so it probably is a regular though not common breeder in the northern portion of the state. It is known to breed from northern Illinois northward.

258a. ***Symphemia semipalmata inornata** Brewster—Western Willet.

A rather common migrant, passing through from the middle of April to the middle of May and again in September. Recorded from various localities west to Cherry county. It is frequently seen in summer, especially about the lakes of the sand-hill region, and J. M. Bates reports having seen young at Kennedy.

261. ***Bartramia longicauda** (Bechstein)—Bartramian Sandpiper.

An abundant migrant throughout the state, breeding commonly in the southern and eastern portion and abundantly in the sand-hill region and on the high plains of the north and west. Arrives about the middle of April and departs about the middle of September.

262. **Tryngites subruficollis** (Vieillot)—Buff-breasted Sandpiper.

A rare and irregular migrant, apparently not so common as in former times. Aughey recorded one specimen from Nebraska City, in September, 1874; Bruner reports it as formerly fairly common at West Point, and the same report comes from L. Sessions at Norfolk; it is also reported from Omaha, Lincoln, Beatrice, DeWitt, and Neligh. Has been taken late in July and in August at Lincoln, but breeds far north.

263. ***Actitis macularia** (Linnaeus)—Spotted Sandpiper.

A common migrant; also a frequent breeder in northern Nebraska, and an occasional breeder in the southern part of the state. Arrives about the first of May, last seen about the middle of October. Reported from numerous localities west to Cherry county, and once by Cary from Andrews, Sioux county, late in May, 1901.

264. ***Numenius longirostris** Wilson—Long-billed Curlew.

Formerly an abundant migrant throughout the state, now very irregular in the eastern portion, though common westward. In former times an abundant breeder also to the eastern edge of the sand-hill region, still a common breeder locally from Cherry county west-

ward, nesting in dry valleys. Arrives by the middle of April, departs by the first of September.

265. **Numenius hudsonicus** Latham—Hudsonian Curlew.

Now a rare and irregular migrant, formerly more numerous. Recorded once or twice from West Point, and once from Holt county, by Bruner; from Lincoln by August Eiche and by Wolcott, Oct. 8, 1898. Breeds far north.

266. **Numenius borealis** (Forster)—Eskimo Curlew.

Formerly very abundant in flocks of thousands, and killed by wagon-loads for food in the early days of the state, now very seldom seen in eastern portion, but still said by sportsmen to be fairly common in the western. Migrating in April and October, and breeding in the Arctic regions.

EXTRALIMITAL: 235. *Arquatella maritima* Bruennich, the Purple Sandpiper, is said to migrate in winter southward to the Great Lakes and the shores of the larger streams in the upper Mississippi valley, though chiefly maritime. It may be looked for on the Missouri river. The Western Solitary Sandpiper, 256a. *H. s. cinnamomeus* Brewster, is a western form said to range eastward to the plains, and may be expected to occur in western Nebraska.

Family CHARADRIIDÆ—Plovers

1. Toes four, the hind toe present but very small; above mottled brownish gray and white, below white in fall, black in spring. . . . . **Black-bellied Plover.**
1. Toes three, the hind toe wanting . . . . . (2)
   2. Back decidedly and brightly dotted with golden and whitish spots on a dark ground; below grayish in fall, varied with more or less black in spring. . . . . **Golden Plover.**
   2. Back uniform plain brown or gray, without decided spots . . . . . (3)
3. Rump bright orange-brown in conspicuous contrast to the brownish back; white lower parts crossed by a neck-ring and breast-band of black . . . . . **Killdeer.**
3. Rump dull colored, never bright, rust red; not more than one black band on lower parts. . . . . (4)
   4. No black patches on sides of breast or black band across it; but an indistinct band of buffy; adults with a crown-stripe and lore-stripe of black; above grayish brown varied with reddish . . . . . **Mountain Plover.**
   4. Breast either crossed by a continuous black band or with conspicuous black patches on the sides. . . . . (5)
5. Space between eye and bill dark brown or black; a heavy black breast-ring, and in spring sides of head and fore crown black; toes webbed at base; back brownish. . . . . **Semipalmated Plover.**
5. Space between eye and bill white; toes not distinctly webbed at base . . . (6)
   6. Bill entirely black and a black spot on the sides of the head; also

a black line above the forehead and the sides of the breast with large black patches not connected; above pale grayish, below pure white. . . . . **Snowy Plover.**

6. Bill yellow at base and black at tip, and sides of head not black; sides of breast with black patches, which are connected by a narrow breast-line; a black crown-line; back pale grayish. . . . . **Belted Piping Plover.**

270. **Squatarola squatarola** (Linnaeus)—Black-bellied Plover.

A regular migrant, but not usually common. However, F. W. Powell records an instance in which he saw thousands on the Platte river, May 21, 1883 (See Cooke's Bird Migr. in Miss.Val., p. 98). Migrating late in April and early in May and in September and October. Sarpy county, Lincoln, Omaha, Alliance, Atkinson, Neligh, Alda, North Platte. Breeds in Arctic regions.

272. **Charadrius dominicus** Mueller—Golden Plover.

Formerly abundant, in flocks of hundreds, still rather common; not recorded west of Holt county. Found from the middle of April to the middle of May and in September and October. Also breeds in Arctic regions.

273. ***Oxyechus vociferus** (Linneaus)—Killdeer.

An abundant migrant, and also abundant summer resident in the sand-hill region, a common breeder over the rest of the state, especially northward. Arrives early in March and remains till November.

274. **Aegialitis semipalmata** Bonaparte—Semipalmated Plover.

A common migrant. Seen during May and September and the first half of October. Breeds in British America. Not reported west of Neligh.

277a. ***Aegialitis meloda circumcincta** Ridgway—Belted Piping Plover.

A fairly common migrant; breeds about the lakes in the sand-hill region, along the Niobrara river, in northern Nebraska, on the Loup at Dannebrog, along the Platte, and perhaps on any of the rivers of the state where are the sand-bars on which it nests. Aughey recorded it breeding in Dakota county in July, 1866, where he found two nests. Arrives in May and departs during the latter part of September.

278. **Aegialitis nivosa** Cassin—Snowy Plover.

This species was included in Bruner's Notes on Nebraska Birds based on the seeing of a flock of what was supposed to be this plover in Holt county in the spring of 1885. But the first definite record, and so far the only one, was established by the taking of two specimens at the lake near Lincoln, May 17, 1903, by Swenk. It must be looked upon as a rare straggler from the west.

281. **Podasocys montanus** (Townsend)—Mountain Plover.

Not uncommon in extreme western Nebraska, where Bruner has

observed it at Sidney, Marsland, and Harrison. It was seen in summer and probably breeds. It is a common breeder in Wyoming.

FAMILY **APHRIZIDÆ**—SURF BIRDS AND TURNSTONES

A medium sized, stout billed, brightly marked bird; above mottled bright rufous, black and white, the rufous replaced by gray in winter ..... **Ruddy Turnstone.**

283.1. **Arenaria morinella** (Linnaeus)—RUDDY TURNSTONE.

A regular but not common migrant. So far all specimens seen have been in May. Omaha, Lincoln, Norfolk, Long Pine. Breeds far north; more frequent along sea-coasts.

[286. **Haematopus palliatus** Temminck, the American Oyster-catcher, belonging to the family Haematopodidae, should be omitted from our list. The evidence on which it was included in Bruner's Notes on Nebraska Birds is not sufficient to warrant the retention of this bird, which is entirely maritime, and has never been recorded inland.]

ORDER VIII. **GALLINÆ**—GALLINACEOUS BIRDS

A. Tarsi without spurs..... **Tetraonidæ.**
A. Tarsi with spurs..... **Phasianidæ.**

FAMILY **TETRAONIDÆ**—GROUSE, PARTRIDGES, ETC.

1. Wing, 10 inches or more long; tail feathers stiff and pointed; tail about as long as the wing..... **Sage Grouse.**
1. Wing under 10 inches; the tail feathers not especially stiff.....(2)
2. Wing 8 to 10 inches long.....(3)
2. Wing 8 inches or less.....(7)
3. Tail about 2 inches shorter than wing, square, black with a distinct terminal gray band..... **Dusky Grouse.**
3. Tail 3½ to 5 inches shorter than wing.....(4)
4. Tail pointed, wedge shaped; tarsus fully feathered.....(5)
4. Tail rounded.....(6)
5. Ground-color, above buffy or pale grayish clay-color, with little or no rusty tinge..... **Columbian Sharp-tailed Grouse.**
5. Ground-color, above more rusty or ochraceous. **Prairie Sharp-tailed Grouse.**
6. Tarsus fully feathered, no bare strip behind..... **Prairie Hen.**
6. Tarsus scantily feathered, exposing a bare strip behind..... **Lesser Prairie Hen.**
7. Larger, 15½ to 19 inches long, with a ruff of black feathers on each side of neck, and broad, fan-shaped tail..... **Ruffed Grouse.**
7. Smaller, 10 inches long; brownish-mottled, white throated, bare legged ..... **Bob-white.**

289. ***Colinus virginianus** (Linnaeus)—BOB-WHITE.

Formerly confined to the eastern portion of Nebraska; now practically over the entire state, especially along river and creek valleys

and about farms where natural shelter occurs. It is exceptionally abundant on the upper Elkhorn and the streams emptying into the Missouri river west of Yankton, South Dakota. During recent years showing a tendency towards domestication.

[297. **Dendragapus obscurus** (Say)—Dusky Grouse.

The range of the Dusky Grouse points to its probable occurrence among the pines of Sioux and Dawes counties. While spending a short time in that region a number of years ago Bruner was informed by some ranchmen of the presence of the "Fool Hen" on Indian creek only a mile or two west of the state line.]

300. ***Bonasa umbellus** (Linneaus)—Ruffed Grouse.

This Grouse is confined to the wooded portions of the eastern one-fifth of the state where it is rare. Rockport, South Omaha—breeding (L. Skow); Weeping Water, Waverly, Richardson county.

305. ***Tympanuchus americanus** (Reichenbach)—Prairie Hen.

Entire state. Formerly abundent in the eastern portion, where it is still common; now plentiful in central portions, especially northward; becoming rarer towards the western end; partially migratory, moving southeastward in fall and northwestward in spring.

307. **Tympanuchus pallidicinctus** Ridgway—Lesser Prairie Hen.

The Lesser Prairie Hen formerly occurred in Cuming and Washington counties where a number were shot in the early seventies by Omaha and local sportsmen. Some of these specimens were mounted and are supposed to be still in existence. Bruner saw a living bird at West Point during the winter of 1871-72 which was approached to within a few yards, but was not taken. It has also been reported from Clay county, South Dakota, by Dr. Agersborg. To our knowledge it has not been seen nor taken within the state since the above dates.

308b. ***Pediœcetes phasianellus campestris** Ridgway—Prairie Sharp-tailed Grouse.

A common bird in the sand-hill region of the middle and western portions of the state where it breeds; formerly spreading to the eastward in winter to Cuming and Dodge counties.

309. ***Centrocercus urophasianus** (Bonaparte)—Sage Grouse.

Not common and confined to the extreme northwestern portions of the state in regions where sage-brush (*Artemesia tridentata*) abounds; along Hat, Antelope, and Indian creeks in Sioux county, where it has several times been reported to breed and where Carriker and Cary found old birds with half-grown young in the summer of 1901 (Proc. N. O. U., III, p. 77).

EXTRALIMITAL: The Columbian Sharp-tailed Grouse, 308a. *P. p. columbianus* (Ord), referred to in Bruner's Notes on Nebraska Birds was an error and based on rather light-colored specimens of *P. p. campestris* taken in the northwestern part of the state along the Pine ridge.

FAMILY **PHASIANIDÆ**—PHEASANTS, TURKEYS, ETC.

1. Very large, 40 to 50 inches long; tail broad; plumage lustrous; head and upper neck without feathers; breast with tuft of hair-like feathers ..... **Wild Turkey.**

1. Medium sized, 20 to 30 inches long; tail lengthened and graduated, the feathers tapering to a point; adult male with white neck-ring, the neck and head feathered, breast rich coppery chestnut, with metallic purple and coppery reflections; female brownish, more or less spotted and mottled with darker..... **Ring-necked Pheasant.**

310. **Meleagris gallopavo silvestris** (Vieillot)—WILD TURKEY.

This magnificent bird was formerly abundant throughout the wooded portions of the state and even on the adjoining prairies as far west along the Platte and Republican rivers as McCook and North Platte. Now, if present at all, very rare; confined to the heavier bodies of timber between the mouth of the Niobrara and Sioux City in the vicinity of Rockport north of Omaha, and between Brownville and Rulo. In territorial days it was common along the Elkhorn, the Big and Little Blue rivers, and on the Niobrara to Long Pine, as well as along the wooded borders of others of our streams.

000. **Phasianus torquatus** Gmelin—RING-NECKED PHEASANT.

This introduced Asiatic pheasant seems to have gained a precarious foothold in portions of southeastern Nebraska where individual birds are occasionally to be met with. A few of them are shot each year although there is a statute making their killing a misdemeanor punishable by a fine of fifty dollars for each bird so destroyed. Table Rock, Pawnee, and Barnston.

ORDER IX. COLUMBÆ—DOVES AND PIGEONS

FAMILY **COLUMBIDÆ**—DOVES

1. Larger, 15 to 17 inches long; tail $8\frac{1}{4}$ inches, pointed; back slate-blue; below chestnut near chin to whitish toward tail .... **Passenger Pigeon.**

1. Smaller, 11 to 13 inches long; tail $5\frac{3}{4}$ inches, less pointed; back brownish; under parts brownish to yellow or buff..... **Mourning Dove.**

315. **Ectopistes migratorius** (Linnaeus)—PASSENGER PIGEON.

Formerly rather common along the Missouri river. Now very rare, and probably entirely absent from the state. The last records of its presence as a Nebraska bird are from West Point, Norfolk, Florence, Papillion, and Omaha.

316. ***Zenaidura macroura** (Linnaeus)—MOURNING DOVE.

An exceedingly common bird over the entire state; chiefly a summer resident, arriving in April and departing during November. Some individuals remain throughout winter in sheltered localities southward. It nests both in trees and on the ground, and rears from two to three broods of young during the summer months.

ORDER X. RAPTORES—Birds of Prey

A. Head entirely without feathers, nostrils longitudinal. . . . . **Cathartidæ.**
A. Head fully featherd, nostrils vertical or roundish. . . . . (B)
B. Eyes lateral, not surrounded by discs of radiating feathers. . . . . **Falconidæ.**
B. Eyes set in front, surrounded by discs of radiating feathers. . . (C)
C. Middle claw pectinate. . . . . **Strigidæ.**
C. Middle claw not pectinate . . . . . **Bubonidæ.**

Family CATHARTIDÆ—American Vultures

1. A very large bird, 26 to 32 inches long, dull black, naked headed, hook billed; tail rounded, nostrils large and broad; skin of neck and head red. . . . . **Turkey Vulture.**
1. Somewhat smaller, 22 to 27 inches long; blacker; tail square; nostrils small and narrow; skin of head and neck black. . . . . **Black Vulture.**

325. ***Cathartes aura** (Linnaeus)—Turkey Vulture; Turkey Buzzard.
A moderately common bird during spring, summer and fall; rare in winter. It has been reported as nesting in Sioux, Cherry, Frontier, Custer, Douglas, Lancaster, and Richardson counties—practically throughout the state in suitable localities.

326. **Catharista urubu** (Vieillot)—Black Vulture; Carrion Crow.
The Black Vulture, which is confined chiefly to the warmer portions of the United States and tropical America, is known to wander northward casually to Maine, Ohio, Illinois, and South Dakota. We have a single authentic record by D. H. Talbot, who took it on Wolf creek. Other, but unconfirmed, reports would point to its occasionally visiting our southern borders.

Family FALCONIDÆ—Falcons, Hawks, Eagles, Etc.

1. Talons or claws all of the same length, narrowed and rounded on lower side; wing 17 to 22 inches long; scales of the tarsus small, rounded . . . . . **Osprey.**
1. Talons of graduated length, the hind one longest, the outer shortest . . . (2)
2. Tarsus densely feathered all around and to the toes; wing 22 to 28 inches long. . . . . **Golden Eagle.**
2. Tarsus bare for at least one-third of its length, or if feathered to the toes, having a bare strip behind. . . . . (3)
3. Tarsus bare behind, feathered to the toes in front; length of wing, 15 to 20 inches. . . . . (4)
3. Tarsus not feathered to the toes even in front; size quite variable. . . . . (5)
4. Feathers of legs more or less buffy; bill small and weak. . . . . **American Rough-legged Hawk.**
4. Feathers of legs bright brownish red with black bars; bill much longer and stronger. . . . . **Ferruginous Rough-leg.**
5. Wing over 19 inches long; adult with white head, neck, and tail. **Bald Eagle.**
5. Wing under 18 inches. . . . . (6)

6. Tail deeply forked; above glossy bluish black, the head, rump, and under parts white . . . . . **Swallow-tailed Kite.**
6. Tail but slightly if at all forked. . . . . (7)
7. Wing 7 or more times as long as tarsus; bill with no sharp teeth or notches; nostrils elongated and without inner bony tubercle. . . . . (8)
7. Wing 7 times as long as the tarsus; bill with a sharp notch and tooth back of tip; nostril circular and with an inner bony tubercle . . . . . (9)
7. Wing 6 or less times as long as tarsus. . . . . (10)
8. Tail white without bars and square tipped. . **White-tailed Kite.**
8. Slaty blue above, gray below; tail black, unbarred . . . . . **Mississippi Kite.**
9. Tarsus hardly at all feathered above; sides of head black. . . **Duck Hawk.**
9. Tarsus feathered less than half way down in front. . . . . **Prairie Falcon.**
9. Tarsus feathered over half way down in front and on sides. . . . . **Gray Gyrfalcon.**
10. Upper tail-coverts white; tail gray (male), ferruginous (female); barred with blackish . . . . . **Marsh Hawk.**
10. With neither the general plumage black nor the upper tail-coverts white. . . . . (11)
11. Nostril circular and with a conspicuous central bony tubercle; upper mandible with a strong tooth and notch back of hooked tip. . . . (12)
11. Nostril oval and the upper mandible without more than one lobe or tooth, and that weak. . . . . (16)
12. Wing 11 to 17 inches long; only one primary notched on inner web. . . . . **Duck Hawk, Prairie Falcon, Gray Gyrfalcon.**
12. Wing 5 to 9½ inches long; two primaries notched. . . . . (13)
13. Back bluish slate-color, or blackish and without bright rufous. . . . . (14)
13. Back or belly with more or less of bright brownish red. . . . . (15)
14. Above slaty blue; middle tail feather with not more than four black bands. . . . . **Pigeon Hawk.**
14. Similar to preceding, but paler; middle tail feather crossed by six light bars, counting the terminal one. . . . . **Richardson Merlin.**
15. Tail with one black bar; male spotted below; whole back barred; female tail with numerous black bars; below streaked. **Sparrow Hawk.**
15. Similar to preceding, but slightly larger and appreciably paler, black bars and streaks narrower. . . . . **Desert Sparrow Hawk.**
16. Tail about ¾ as long as wing. . . . . (17)
16. Tail not over ⅔ as long as wing. . . . . (19)
17. Wing under 9 inches long; the tail square. . . . . **Sharp-shinned Hawk.**
17. Wing 9 to 11 inches long; the tail rounded. . . . . **Cooper Hawk.**
17. Wing 11½ to 14½ inches long. . . . . (18)
18. Above bluish slate-color, crown darker, a whitish line over eye to the nape; below finely marked with gray and white . . . . . **American Goshawk.**
18. Above dark plumbeous, markings on lower parts heavier and darker. . . . . **Western Goshawk.**
19. Outer web of primaries with white buffy or reddish spots; four outer

primaries notched on the inner web. . . . . **Red-shouldered Hawk.**

19. Outer web of primaries not as above. . . . . (20)
    20. Four outer primaries notched on the inner web. . . . . (21)
    20. Three outer primaries notched. . . . . (22)
21. Tail rusty brown, with a black band, sometimes broken near its tip; below buffy white, a band of spots across the belly; legs usually without bars. . . . . **Red-tailed Hawk.**
21. Similar to preceding, but nearly or wholly white below; adults usually without black tail-band. . . . . **Krider Hawk.**
21. Varying from sooty brown above and below with more or less rusty to a light phase resembling *borealis*, but tail averages paler and sometimes has more than one bar; under parts deeper and legs usually barred with rusty. . . . . **Western Red-tail.**
21. Above sooty brown; tail closely mottled with blackish, rusty, and whitish; below varying from white, more or less spotted on belly, to sooty brown. . . . . **Harlan Hawk.**
    22. Wing 14 to 18 inches long; breast patch rusty brown (male) or grayish brown (female). . . . . **Swainson Hawk.**
    22. Wing 9½ to 12 inches long; tail with two whitish bands and a brownish tip; below barred with rusty brown. . . . . **Broad-winged Hawk.**

327. ***Elanoides forficatus** (Linnaeus)—Swallow-tailed Kite.

A regular visitor in eastern third of the state; not common. Omaha, West Point, Tekamah, Fullerton, Beatrice, Falls City; breeding at Greenwood, Rockport, and Calhoun.

[328. **Elanus leucurus** (Vieillot)—White-tailed Kite.

The record given in Bruner's Notes on Nebraska Birds of the occurrence of this species is an error. But its range is such as to make it possible that it may be taken in the state.]

[329. **Ictinia mississippiensis** (Wilson)—Mississippi Kite.

While the known range of this kite would bring it within our borders, the record by R. E. Dinges as given in Bruner's Notes on Nebraska Birds is very likely an error.]

331. ***Circus hudsonius** (Linnaeus)—Marsh Hawk.

Found over the entire state, common. In part resident—a few remaining throughout winter. Breeds on low ground, more commonly in the sand-hills and northwestward.

332. ***Accipiter velox** (Wilson)—Sharp-shinned Hawk.

A common migrant over the entire state in spring and fall, and an occasional winter resident. Breeds regularly in Sioux county. Reported by all observers.

333. ***Accipiter cooperi** (Bonaparte)—Cooper Hawk.

Like the preceding, this hawk is found over the entire state in spring, summer, and fall; abundantly in the southeastern portion, common

elsewhere. Frequently seen in winter. An earlier and more general breeder than the Sharp-shinned.

334. **Accipiter atricapillus** (Wilson)—American Goshawk.

A regular, but not common, winter visitant. Observed at Omaha, Lincoln, Rockport, Norfolk, and in Sioux county.

[334a. **Accipiter atricapillus striatulus** Ridgway—Western Goshawk.

This western variety of the preceding species has been reported once from Florence, in 1896, by L. Skow, and again from Kennedy, Oct. 1896, by J. M. Bates. Very dark colored goshawks are occasionally to be met with in the state, especially westward, which may be the wesern variety.]

337. ***Buteo borealis** (Gmelin)—Red-tailed Hawk.

The typical Red-tailed Hawk is confined to the eastern half of the state where it is found in the timber belts along all the larger watercourses. It is partially migratory, but some remain throughout winter. Breeds over entire range and feeds chiefly on rabbits, ground squirrels, etc.

337a. ***Buteo borealis kriderii** Hoopes—Krider Hawk.

Found chiefly westward but spreading to eastern part of state during migrations; breeds in Sioux and Dawes counties—sometimes, at least, on ledges of the canyon walls.

337b. **Buteo borealis calurus** (Cassin)—Western Red-tail.

During migrations straggling over the entire state. Breeds commonly in both Colorado and Wyoming, and may breed also in western Nebraska. West Point, Omaha, and Lincoln.

337d. **Buteo borealis harlani** (Audubon)—Harlan Hawk.

Casually over eastern third of the state, but not known to breed. West Point, Omaha, Lincoln. There is a specimen in the collection of August Eiche taken at the latter locality.

339. ***Buteo lineatus** (Gmelin)—Red-shouldered Hawk.

A not uncommon hawk in the eastern part of the state, where it breeds most abundant along the Missouri river bluffs. Omaha, Bellevue, Nebraska City, Rulo, Lincoln, Neligh.

342. ***Buteo swainsoni** Bonaparte—Swainson Hawk.

A very common hawk over the entire state; in fall sometimes gathering in large flocks during migrations; nesting throughout the Nebraska range eastward in trees, westward frequently on the ground. Occurring in several color variations.

343. ***Buteo platypterus** (Vieillot)—Broad-winged Hawk.

A regular and rather common summer visitant and breeder along the Missouri river and its tributaries in the eastern part of the state; rare in the interior, and a straggler in western Nebraska. Observed once at Harrison, Sioux county, by Bruner; at Long Pine by Bates, and at Neligh by Cary—numerous records farther east.

347a. **Archibuteo lagopus sancti-johannis** (Gmelin)—American Rough-legged Hawk.

A rather rare winter visitant in middle and southern Nebraska, but more common in the northern part of state. Breeds chiefly north of the United States. West Point, Omaha, Lincoln, Neligh, Cherry county.

348. ***Archibuteo ferrugineus** (Lichtenstein)—Ferruginous Rough-leg.

This is the common rough-legged hawk in the state and occurs throughout. It is less common in the eastern portion, but becomes more plentiful as we approach the middle and western sections of the state. It nests in moderate numbers in the sand-hills, and commonly along Pine ridge and about the buttes of western and northwestern Nebraska. It is a ground bird to a great extent, and frequents the vicinity of prairie dog towns, upon the inhabitants of which it preys.

349. ***Aquila chrysætos** (Linnaeus)—Golden Eagle.

This magnificent bird is found in moderate numbers throughout the state in winter, but is more common westward. Owing to its large size, fearless nature, and carrion-eating habits, we have numerous records of its occurrence each year, and a few still breed annually in Scott's Bluff, Sioux, and Dawes counties. It bred quite generally over the state years ago.

352. **Haliæetus leucocephalus** (Linnaeus)—Bald Eagle.

Much less common than the preceding, and seems to be confined chiefly to our larger water-courses even during its migrations. It probably formerly bred in the more heavily wooded portions of northeastern Nebraska, and it is likely that a few still do so, but there are no definite breeding records. It likes to nest near where the Osprey makes its summer home so as to have an opportunity to rob the latter of its catch and save the work for itself. Many records.

[354. **Falco rusticolus** Linnaeus—Gray Gyrfalcon.

This northern falcon has been taken at Vermillion, S. Dak., and is known to wander casually south to Kansas. It is included here on the strength of a record of a single specimen seen by Bruner at West Point, but not positively identified; another, probably the same species, was reported to him as seen at Norfolk.]

355. ***Falco mexicanus** Schlegel—Prairie Falcon.

Over the entire state in migrations; rare in eastern portions, rather common westward; a few are resident, but the majority move south in late fall, and return in early spring. It is a regular breeder in Dawes and Sioux counties, where it nests during May and June upon ledges on the faces of perpendicular cliffs.

356. **Falco peregrinus anatum** (Bonaparte)—Duck Hawk.

A rare but regular migrant over the entire state. Lincoln, Omaha, West Point, Neligh, Dawes county. It probably breeds in this last

named locality where old and young birds were observed by Bruner Aug. 5 to 19, 1903, flying about the cliffs 8 miles west of Ft. Robinson, going in and out of a recess that may have been the nesting site.

357. **Falco columbarius** Linnaeus—Pigeon Hawk.

Not common, but found over the entire state during migrations. A few remain over winter. We have no records of its breeding in the state. Omaha, Lincoln, West Point, Neligh, Long Pine, Dawes and Sioux counties.

358. **Falco richardsonii** Ridgway—Richardson Merlin.

This small hawk seems to be rare in Nebraska at present, but is said by Aughey to have been formerly common and to have bred, but he gave no definite breeding record. Taken at West Point and Omaha by Bruner; and reported from southeastern Nebraska by Powell. The museum of the state university contains a specimen from the first locality.

360. ***Falco sparverius** Linnaeus—Sparrow Hawk.

Common in the eastern portion of the state; abundant westward; breeding throughout. Arrives early in April, departs in October.

360a. **Falco sparverius phalæna** Lesson—Desert Sparrow Hawk.

A specimen from Sioux county taken in Jim creek canyon May 26, 1901, by M. A. Carriker, Jr., and sent to Witmer Stone, has been determined as "nearly typical" *phalæna*. Whether or not this is the breeding form there we cannot say. It was not suspected hitherto that we had this form in the state, and careful note was not taken of the Sioux county birds.

364. ***Pandion haliætus carolinensis** (Gmelin)—Osprey.

A regular migrant; most frequent along the Missouri and its tributaries, less so in the interior or middle, and almost or quite absent from the extreme western portion. Formerly bred along the Missouri river near Rockport, where Bruner observed birds carrying food to the nest, and may still do so occasionally in the northeastern part of the state. Numerous records.

Family **STRIGIDÆ**—Barn Owls

Without ear-tufts; eyes black; above gray and yellowish buff; below white more or less washed with buff and spotted with black . . . . . **Barn Owl; Monkey-faced Owl.**

365. ***Strix pratincola** Bonaparte—Barn Owl; Monkey-faced Owl.

Practically over the entire eastern half of state, but more common southward; becoming more generally dispersed with the settlement of new districts. Breeds over most of its range, selecting for the purpose burrows in banks, niches in rocky cliffs, hollow trees, nooks about buildings, etc. Lincoln, Omaha, West Point, Cherry county, Beatrice, Hebron, McCook.

FAMILY **BUBONIDÆ**—HORNED OWLS, ETC.

1. Tarsus partly bare, twice as long as middle toe; wing 5½ to 7½ inches long. . . . . **Burrowing Owl.**
1. Tarsus fully feathered. . . . . (2)
2. Head with conspicuous ear-tufts. . . . . (3)
2. Head without ear-tufts. . . . . (11)
3. Wing 8 inches or less in length . . . . . (4)
3. Wing over 8 inches long. . . . . (7)
4. Without ear-tufts; wing 3½ to 4 inches long. . . . . **Pygmy Owl.**
4. With ear-tufts; wing over 4 inches long. . . . . (5)
5. Toes entirely naked to extreme base; ear-tufts small. . . . . **Flammulated Screech Owl.**
5. Toes distinctly feathered or bristled on upper side; ear-tufts rather large. . . . . (6)
6. Above gray, irregularly marked with black; below gray, white, rusty and black, (gray phase); or above bright rusty brown with a few black streaks; below white streaked with black and barred with rusty brown, (red phase). . . . . **Screech Owl.**
6. Very pale; above with a pale grayish buff predominating; black markings throughout very narrow and less numerous than in other forms. . . . . **Rocky Mountain Screech Owl.**
7. Size large, form robust; wing 14 to 18 inches long. . . . . (8)
7. Size medium, form slender; wing 11 to 13 inches long. . . . . (10)
8. General color darker, much suffused with buffy and rufous. . . . . **Great Horned Owl.**
8. General color lighter and grayer, with little or no buffy in plumage . . . . . (9)
9. Very pale throughout; the feet immaculate. . . . . **Arctic Horned Owl.**
9. Darker, but not buffy or ferruginous; the feet more or less spotted. . . . . **Western Horned Owl.**
10. Ear-tufts large and composed of 8 to 12 feathers . . . . . **American Long-eared Owl.**
10. Ear-tufts small, composed of few feathers. . . . . **Short-eared Owl.**
11. Wing 10 inches or under. . . . . (12)
11. Wing more than 10 inches long. . . . . (14)
12. Wing 8 to 10 inches long; hawk-like in appearance. . . . . **American Hawk Owl.**
12. Wing 5 to 8 inches long. . . . . (13)
13. Length 10 inches; above grayish brown with numerous white spots, especially on head. . . . . **Richardson Owl.**
13. Length 8 inches; above cinnamon brown; forehead with many streaks; hind head with few. . . . . **Saw-whet Owl.**
14. General color white, more or less barred with blackish. . . . . **Snowy Owl.**
14. General color gray or brown. . . . . (15)
15. Length 20 inches; eyes black; breast barred. . . . . **Barred Owl.**
15 Length 27 inches; eyes yellow; breast streaked . . . . . **Great Gray Owl.**

366. *Asio wilsonianus (Lesson)—American Long-eared Owl.

Distributed over the entire state in the wooded portions; common eastward, less frequent westward. Breeds throughout its range.

367. *Asio accipitrinus (Pallas)—Short-eared Owl.

Found over the whole of Nebraska where it is frequently very plentiful during migrations, and at times is to be met with in flocks of a dozen or more. Some remain over winter, and others in the summer—the latter breeding. A nest was found in Dodge county on the ground in tall dead prairie grass in April by Bruner. Several nesting records and numerous other records are at hand.

368. *Syrnium varium (Barton)—Barred Owl.

A not uncommon resident and breeder in the wooded districts of the eastern one-third of the state, but becoming rarer westward towards the eastern edge of Colorado and Wyoming where it seems to be absent. Numerous records.

370. Scotiaptex nebulosa (Gmelin)—Great Gray Owl.

A northern species which rarely reaches the state in winter. It was reported once, Dec. 17, 1893, near Omaha by I. S. Trostler. A mounted specimen in a saloon at Long Pine is claimed to have been taken in that vicinity.

371. Cryptoglaux tengmalmi richardsoni (Bonaparte)—Richardson Owl.

The authority for including this northern owl as a Nebraska bird, was the taking of a live bird near Lincoln on Dec. 10, 1892, by some boys. It is now in the state university museum. It has been reportd also as of casual occurrence in Iowa and Colorado.

372. *Cryptoglaux acadica (Gmelin)—Saw-whet Owl.

A not rare species over the entire state, but most plentiful in winter. It has been found breeding at Nebraska City by M. A. Carriker, Jr.; is known to breed quite regularly across the river from Omaha and probably does on the Nebraska side also. It is reported as occuring at Beatrice, Lincoln, Omaha, West Point, Neligh, Long Pine, and in Sioux county.

373. *Megascops asio (Linnaeus)—Screech Owl.

This is our most abundant and generally distributed owl. Both the gray and red color phases occur in most regions, but the gray greatly predominates. It breeds throughout its Nebraska range.

[373e. Megascops asio maxwelliæ (Ridgway)—Rocky Mountain Screech Owl.

While we have no definite records of the occurrence of this Rocky Mountain form of the Screech Owl within the state, there is little doubt but that it occurs in the extreme western portions of Nebraska. It is reported as ranging along the foothills and adjacent plains from Colorado to Montana.]

375. *Bubo virginianus (Gmelin)—Great Horned Owl.

The typical *virginianus*, or a race that approaches this form most nearly, occurs quite commonly over the eastern third of the state where it is resident and a regular breeder; westward merging into the next sub-species.

375a. *Bubo virginianus pallescens Stone—Western Horned Owl.

This horned owl is resident in western Nebraska, where it is common and spreads eastward in winter over the entire state. Breeds in Sioux and Dawes counties. West Point, Omaha, Lincoln. The Dusky Horned Owl referred to in Bruner's Notes on Nebraska Birds certainly belongs to this form.

375b. Bubo virginianus arcticus (Swainson)—Arctic Horned Owl

Rarely into the state during winter. The University of Nebraska collection contains a single specimen taken at West Point by Bruner. It was also reported once by L. Skow at Florence.

376. Nyctea nyctea (Linnaeus)—Snowy Owl.

Coming regularly into Nebraska from the north in winter; found throughout the state and sometimes abundant. Numerous records.

377a. Surnia ulula caparoch (Mueller)—American Hawk Owl.

This northern species winters south to northern United States, casually to Illinois, etc. Included as a Nebraska bird on the strength of a single specimen which was shot in Nov., 1891, at Raymond, by E. R. Mockett. The specimen was mounted and was seen by Bruner and August Eiche.

378. *Speotyto cunicularia hypogæa (Bonaparte)—Burrowing Owl.

A very common owl in the middle and western parts of the state, becoming rare eastward. Formerly common to the Missouri river; now almost absent from the more thickly settled portions of the eastern counties. Numerous records. Breeding throughout its range.

EXTRALIMITAL: A number of years ago Bruner saw a very small owl near Omaha which he cannot bring himself to believe was the Acadian—could it have been a Pygmy Owl, 379. *Glaucidium gnoma* Cassin, which species is found in Colorado? The Flammulated Screech Owl comes so close to our western border that it has been considered wise to at least include it in the synoptic table.

ORDER XI. PSITTACI—Parrots, Macaws, Paroquets, etc.

Family PSITTACIDÆ—Parrots and Paroquets

A small, green, long-tailed paroquet with yellow head and orange forehead and cheeks ..... **Carolina Paroquet.**

382. *Conurus carolinensis (Linnaeus)—Carolina Paroquet.

Formerly a common bird in the Missouri river bottoms, especially southward, probably not extending north of the mouth of the Platte; now completely extinct in the state, having disappeared about 1866. They used to breed on an island in the Missouri river near Brownville. (See Furnas, Proc. N. O. V. III, 107.)

ORDER XII. COCCYGES—Cuckoos, Kingfishers, etc.

A. Toes, two in front, two behind; bill curved downwards.....**Cuculidæ.**
A. Toes, three in front, one behind; bill straight.....**Alcedinidæ.**

Family CUCULIDÆ—Cuckoos

1. Bill wholly blackish; tail narrowly white-tipped; wings slightly cinnamon .....**Black-billed Cuckoo.**
1. Bill mostly yellow below; tail broadly white-tipped; wings extensively cinnamon.....(2)
   2. Smaller, with smaller bill (wing under $5\frac{3}{4}$, tail under 6, culmen under 1 inch).....**Yellow-billed Cuckoo.**
   2. Larger, with larger bill (wing over $5\frac{3}{4}$, tail over 6, culmen 1 inch or more).....**California Cuckoo.**

387. ***Coccyzus americanus** (Linnaeus)—Yellow-billed Cuckoo.
Eastern half of state, a common summer resident and breeder, arriving the second week in May, breeding in June or early July, departing early in September. Omaha, Lincoln, Beatrice, West Point, Neligh, Niobrara valley, Holt county, Cherry county, Bloomington.

388. ***Coccyzus erythrophthalmus** (Wilson)—Black-billed Cuckoo.
Entire state, but rather uncommon; dates practically as preceding; breeding wherever present. Omaha, Lincoln, Beatrice, West Point, Neligh, Niobrara valley, Long Pine, North Platte, Sioux county.

EXTRALIMITAL: 387a. *C. e. occidentalis* Ridgway, the California Cuckoo, a western race of the Yellow-billed, is the form occurring throughout Colorado to within a few miles of the eastern boundary of the state, and any yellow-billed cuckoo found in western Nebraska is very apt to be *occidentalis*.

Family ALCEDINIDÆ—Kingfishers

A large, blue backed, crested kingfisher, white below and with a blue band across the breast.....**Belted Kingfisher.**

390. ***Ceryle alcyon** (Linnaeus)—Belted Kingfisher.
Common over the entire state; breeding in sand and clay banks. Arrives first week in April, breeds early in June, lingers until late fall, and a few remain the entire winter where there is open water.

ORDER XIII. PICI—Woodpeckers, Wrynecks, etc.

Family PICIDÆ—Woodpeckers

1. Back entirely dark, without white marks, but rump sometimes white..(2)
1. Back conspicuously marked with white or yellowish.....(7)
   2. Back shining blackish (3)—brownish with black bars; under parts spotted .....(6)
3. Head crested, the crest bright scarlet, or partly so; under parts black; size of crow.....**Northern Pileated Woodpecker.**

3. Head not crested; under parts not entirely black; much smaller than a crow. . . . . (4)
   4. Under parts of stiff reddish feathers; elsewhere shining bronze-black, except for a grayish collar and a red face. **Lewis Woodpecker.**
   4. Under parts of soft feathers; without red on breast or belly. . . . (5)
5. Secondaries entirely white; rump white; head and neck red in adult, brownish in young; toes 4; flanks not barred. . . . . **Red-headed Woodpecker.**
5. Wings black, spotted with white; rump black; crown orange in male; toes 3; flanks barred. . . . . **Arctic Three-toed Woodpecker.**
5. Wings black, spotted with white, a large white patch on bend of wing; rump white; head black with two white stripes on sides and a red one on throat; toes 4; flanks barred; belly light yellow. . . . . **Williamson Sapsucker,** male.
   6. Under surface of wings and tail yellow; throat brownish; male with a black malar stripe. . . . . **Northern Flicker.**
   6. Under surface of wings and tail orange-red; throat ashy; male with a red malar stripe . . . . . **Red-shafted Flicker.**
7. Back black marked with white (9)—back mottled, black and yellowish; belly yellowish. . . . . (8)
   8. Nape whitish; male with a black stripe from bill to chest separating the red throat from the white cheeks; female with whole chin and throat white. . . . . **Yellow-bellied Sapsucker.**
   8. Nape more or less red; male with red of throat extending in middle to the cheeks, thus obliterating the black stripe except at ends; female with throat largely red. . . . . **Red-naped Sapsucker.**
9. Back black with conspicuous, regular, white cross-bars. . . . . (10)
9. Back with a large, broad, white streak running lengthwise, but no cross-bars. . . . . (12)
   10. Outer tail feathers conspicuously entirely white; toes 3; crown yellow in male. . . . . **American Three-toed Woodpecker.**
   10. Outer tail feathers with black; toes 4; much barred with black and white. . . . . (11)
11. Under parts yellowish; head brown, without decided white or red. . . . . **Williamson Sapsucker,** female.
11. Under parts reddish; head grayish white with more or less red on crown. . . . . **Red-bellied Woodpecker.**
   12. Under tail feathers white, barred with black; smaller, wing under 4 inches. . . . . (13)
   12. Under tail feathers white, not barred; larger, wing over 4½ inches. . . . . (14)
13. Middle and greater wing-coverts conspicuously spotted with white. . . . . **Northern Downy Woodpecker.**
13. Middle and greater wing-coverts plain black or but slightly spotted. . . . . **Batchelder Woodpecker.**
   14. Middle and greater wing-coverts plain black or the white

spots few; below pure white; wing over 5 and tail up to 4 inches. . . . . **Rocky Mountain Hairy Woodpecker.**

14. Middle and greater wing-coverts conspicuously white spotted; lores black or mostly black. . . . . (15)

15. Larger, wing over 5, tail $3\frac{3}{5}$ to 4, culmen $1\frac{2}{5}$ to $1\frac{3}{5}$ inches; paler. . . . . **Northern Hairy Woodpecker.**

15. Smaller, wing not over 5, tail $3\frac{1}{10}$ to $3\frac{3}{5}$, culmen under $1\frac{2}{5}$ inches. . . . . **Hairy Woodpecker.**

393. ***Dryobates villosus** (Linnaeus)—Hairy Woodpecker.

A common resident over at least the eastern half of state, breeding in early May. Omaha, Lincoln, Peru, West Point, Neligh, Rock county, Cherry county.

[393a. **D. v. leucomelas** (Boddaert), the Northern Hairy Woodpecker, is the form breeding north of the United States and reaching the northern states in winter. Large specimens of the Hairy Woodpecker taken at Omaha in winter have been referred to this form by Skow and Trostler, but probably represent only the maximum of *villosus*.]

393e. ***Dryobates villosus monticola** Anthony—Rocky Mountain Hairy Woodpecker.

A common resident in Sioux county, entirely replacing the eastern form. To this form must be referred all the records given as Cabanis Woodpecker in former Nebraska reports. A dozen or more specimens from Sioux county all agree with this form rather than with *hyloscopus*.

394b. ***Dryobates pubescens homorus** (Cabanis)—Batchelder Woodpecker.

An uncommon resident in Sioux county, breeding in willow stubs: not so common as the corresponding variety of the Hairy. (Formerly referred to as Gairdner's Woodpecker.)

394c. ***Dryobates pubescens medianus** (Swainson)—Northern Downy Woodpecker.

A very common resident in the eastern third of the state, breeding commonly; rare and local west of this to about the middle of the state. Omaha, Lincoln, Beatrice, Peru, Dakota City, West Point, Neligh, Niobrara, Long Pine.

400. **Picoides arcticus** (Swainson)—Arctic Three-toed Woodpecker.

A northern species making its way south in winter to the northern states. Has been taken three times in the state, twice at Omaha, once by I. S. Trostler, Dec. 15, 1895 and again by F. J. Brezee, and at Dakota City by Wallace Bruner.

402. **Sphyrapicus varius** (Linnaeus)—Yellow-bellied Sapsucker.

A migratory woodpecker, found only in the eastern part of the state and common only in the Missouri bottoms. It has frequently been seen in various localities in summer but its nest has never been

found and its breeding is still open to question. Omaha, Peru, West Point—in summer. Migratory at Lincoln.

405. **Ceophlœus pileatus abieticola** Bangs—Northern Pileated Woodpecker.

This magnificent woodpecker was formerly not uncommon in the more heavily wooded portions of the Missouri bottoms. Both L. Skow and Bruner have seen it in the vicinity of Rockport, and Bruner also found it not rare about Tekamah years ago. The last Nebraska record is I. S. Trostler's, from near Omaha, May 20, 1895, a bird seen. It probably used to breed in these regions, for there have been noted in the past numerous indications of what was undoubtedly the work of this bird in building its nesting sites. If now present at all it is very rare. The Peru record of the "Ivory-billed" refers to this species.

406. ***Melanerpes erythrocephalus** (Linnaeus)—Red-headed Woodpecker.

Common throughout the whole state. Locally abundant and increasing in numbers. It winters but is rare at this season, in the southern part of the state, the bulk appearing about the first of May and remaining till late in October. Breeding throughout its range.

408. ***Asyndesmus torquatus** (Wilson)—Lewis Woodpecker.

Common summer resident and breeder in the pine-covered canyon districts of Sioux, Dawes, northern Sheridan, and Scott's Bluff counties; in winter east to the eastern limits of the pines or about Long Pine and Valentine.

409. ***Centurus carolinus** (Linnaeus)—Red-bellied Woodpecker.

Found locally in eastern Nebraska, especially southward; breeding uncommonly and rarely remaining in winter. Omaha, Nebraska City, Lincoln, Beatrice, West Point. Bruner reports seeing a straggler once in Monroe canyon, Sioux county.

412a. ***Colaptes auratus luteus** Bangs—Northern Flicker.

Common all over the state, abundant eastward, breeding throughout, and only in part migratory.

413. ***Colaptes cafer collaris** (Vigors)—Red-shafted Flicker.

A common resident over the entire state, abundant westward, very common eastward in winter but becoming much less so in summer. Sioux and Cherry counties, Lincoln, Beatrice, Omaha.

EXTRALIMITAL: It is barely possible that the American Three-toed Woodpecker, 401. *P. americanus* Brehm, may reach our state in winter very rarely, but there is no record as yet. 402a. *S. v. nuchalis* Baird, the Red-naped Sapsucker, is the western variety of the Yellow-bellied Sapsucker. It is common in eastern Colorado and Wyoming and has been taken in western Kansas, so may be expected in western Nebraska also. Williamson Sapsucker, 404. *S. thyroideus* (Cassin), is common in both Colorado and Wyoming,

breeding from 5,000 to 10,000 feet, and migrating commonly in the foothills even to Cheyenne, so it may occasionally reach Nebraska also during migrations.

ORDER XIV. MACROCHIRES—Goatsuckers, Swifts, etc.

A. Bill slender and long, gape narrow; plumage metallic. . . . . **Trochilidæ.**
A. Bill short and broad at base; gape very wide; plumage non-metallic. (B)
B. Middle toe pectinated and longer than others. . . . . **Caprimulgidæ.**
B. Middle toe not pectinate nor longer than others. . . . **Micropodidæ.**

Family CAPRIMULGIDÆ—Goatsuckers, Nighthawks, etc.

1. Middle of primaries with a conspicuous white bar; tail forked; rictal bristles very small. . . . (2)
1. Middle of primaries without a white spot; tail rounded or square; rictal bristles long. . . . (3)
2. Darkest. Black markings prominent above, much in excess of the brown and gray mottlings, the blackish bars below mostly complete. . . . **Nighthawk.**
2. Paler. Gray and rufous in excess of dark color above, the white on wing, tail and throat more extensive, below often washed with rusty. . . . **Western Nighthawk.**
2. Palest. Pale silvery gray predominating above, the white below greatly in excess of the narrow, irregular or broken, dark bars, and little or no rufous feathers . . . **Sennett Nighthawk.**
3. Tarsus feathered; tail rounded, the 3 outer feathers white tipped for over an inch. . . . **Whippoorwill.**
3. Tarsus naked; tail even, the 3 outer feathers white tipped for less than an inch . . . (4)
4. Darker, the ground color of upper parts velvety gray, irregularly barred with black; below barred with blackish and buffy; chin and cheeks blackish . . . **Poorwill.**
4. Paler, the ground color of upper parts much lighter, largely frosty white, with the dark markings fewer and sharper; the bars beneath finer and paler, less conspicuous; chin and cheeks faded brown. . . . **Frosted Poorwill.**

417. ***Antrostomus vociferus** (Wilson)—Whippoorwill.

Uncommon summer resident and breeder along the Missouri river, more rarely westward over about the eastern half of state. Omaha, Peru, Nebraska City, Neligh—breeding. Noted also, but not breeding, at Lincoln, West Point, Thomas county—rare. Arrives the last week in April, breeds from the middle of May to well into June, leaves late in September.

418. ***Phalaenoptilus nuttallii** (Audubon)—Poorwill.

Western part of state, common; breeding in the canyons of Sioux county and east at least to Long Pine canyon, probably across the state northward.

420. ***Chordeiles virginianus** (Gmelin)—Nighthawk.

The nighthawks breeding along the Missouri and a little westward are very clearly of this form, which occurs during migration over the eastern half of the state, but is not nearly so abundant as is *sennetti* westward. Arrives the second week in May, breeds in early June, departs before the middle of September. Omaha, Peru, Beatrice, Lincoln, West Point.

420a. ***Chordeiles virginianus henryi** (Cassin)—Western Nighthawk.

This rufous form is the commoner one in Sioux county, though specimens nearer *sennetti* also occur there. During migrations it extends eastward about half way across the state, flocking with *sennetti*. Indian creek, Warbonnet canyon, Harrison—breeding.

420c. ***Chordeiles virginianus sennetti** (Coues)—Sennett Nighthawk.

This is the nighthawk of the whole western two-thirds of the state except in Sioux county where it is mostly replaced by and runs into *henryi*; it occupies this region to the complete exclusion of the other forms during the breeding season. It is the nighthawk of the sandhills, where its conspicuous paleness makes its identity unmistakable, but eastward it intergrades with *virginianus* and is more difficult to distinguish. Antelope, Holt, Rock, Cherry, Dawes, Thomas, Dundy, Red Willow counties.

EXTRALIMITAL: 418a. *P. n.nitidus* Brewster, the Frosted Poorwill, occurs as a summer resident in western Kansas and eastern Colorado, and may reasonably be expected in extreme southwest Nebraska, though there is as yet no specimen from that locality.

Family **MICROPODIDÆ**—Swifts

1. Sooty, paler below, the throat gray, wings black; tail rounded, spine tipped. . . . . **Chimney Swift.**
1. Black, under parts except the sides white; tail forked, not spiny. . . . . **White-throated Rock Swift.**

423. ***Chætura pelagica** (Linnaeus)—Chimney Swift.

Eastern portions of state only, west along northern border to Neligh, O'Neill, Atkinson, and probably Long Pine, but rare west of the 98th meridian. Arriving third week in April, breeding the latter part of May, and departing second week in September. Locally very abundant. Omaha, Lincoln, Beatrice, Peru, West Point, Niobrara.

425. ***Aeronautes melanoleucus** (Baird)—White-throated Rock Swift.

Sioux, Scott's Bluff, and Dawes counties, common summer resident and breeder in the high perpendicular cliffs of that region. (See Carriker, Proc. N. O. U., III, pp. 81-83.)

Family **TROCHILIDÆ**—Hummingbirds

1. Throat metallic red; males (2)—not wholly metallic red; females. . . . (4)
   2. Tail forked; outer primary broad, end turned inward; back golden green. . . . . **Ruby-throated Hummingbird.**

2. Tail rounded; outer primary narrow, acute. . . . . (3)
3. Back golden green; end of outer primary bowed outward; throat pink. . . . . **Broad-tailed Hummingbird.**
3. Back and tail mostly chestnut; end of outer primary bowed inward; throat coppery. . . . . **Rufous Hummingbird.**
4. Tail without rufous, doubly rounded, three outer feathers white tipped, black barred. . . . . **Ruby-throated Hummingbird.**
4. Tail with rufous, rounded, four outer feathers white tipped, middle pair greenish. . . . . (5)
5. Outer tail feather under 1 inch long and only $\frac{1}{8}$ inch broad, the rufous equalling or exceeding the black. . . . . **Rufous Hummingbird.**
5. Outer tail feather over 1 inch long and $\frac{1}{4}$ inch broad, the rufous less extensive than the black. . . . . **Broad-tailed Hummingbird.**

428. ***Trochilus colubris** Linnaeus—Ruby-throated Hummingbird.

Eastern Nebraska, not recorded west of the 98th meridian, breeding quite commonly in the ravines of the Missouri river bluffs. Arrives second week in May, breeds in June, departs late in September. Omaha, Beatrice, Gresham, Lincoln, West Point.

432. **Selasphorus platycercus** (Swainson)—Broad-tailed Hummingbird.

During the summer of 1891, Bruner saw on several occasions on the Pine ridge in Sioux and Dawes counties a species of hummingbird which he identified as this one, and a later intimate acquaintance with it in Colorado confirmed his identification. The hummingbird reported by J. M. Bates in Bruner's list from Cherry county (Valentine) according to his own judgment also belongs here since he later identified the Broad-tailed at Bassett, Sept. 10, 1899, thus establishing its range half way across the state. (See Proc. N. O. U., I, pp. 16-17.) In the adjacent states of Wyoming and Colorado this species is common.

EXTRALIMITAL: 433. *S. rufus* (Gmelin), the Rufous Hummingbird, is a western species which is fairly common in Colorado and has been taken at Cheyenne, Wyo., only about 60 miles from the Nebraska line.

ORDER XV. PASSERES—Perching Birds

A. Tarsus with its hinder edge compressed. . . . . (C)
A. Tarsus with its hinder edge rounded. . . . . (B)
B. Bill hooked at tip and with bristles at base. . . . . **Tyrannidæ.**
B. Bill not hooked at tip and without bristles. . . . . **Alaudidæ.**
C. Primaries 9, the outermost one much over $\frac{1}{2}$ length of next. . . . . (D)
C. Primaries 10, the outermost one not over $\frac{1}{2}$ length of next. . . . . (J)
D. Bill slightly hooked at tip, narrow and straight . . **Vireonidae** (pt.)
D. Bill not hooked at tip or else short and broad based, or toothed on cutting edge of upper mandible. . . . . (E)
E. Bill very broad; its gape twice length of culmen. . . . . **Hirundinidae.**
E. Bill various, but gape never twice length of culmen. . . . . (F)

F. Bill conoid; if compressed the tip slightly hooked, and if slender with a notch on upper cutting edge near tip, or the tip acute ..... (H)

F. Bill slender; if deep the culmen much curved, and if approaching conoid the corners of the mouth not turned downward ..... (G)

G. Tertials nearly as long as primaries ..... **Motacillidæ.**

G. Tertials not nearly as long as primaries ..... **Mniotiltidæ.**

H. Rictal bristles obsolete; bill not notched at tip ..... **Icteridæ.**

H. Rictal bristles present; bill notched at tip or nostrils feathered (I)

I. Corners of mouth turned abruptly downward ..... **Fringillidæ.**

I. Corners of mouth not turned downward ..... **Tanagridæ.**

J. Front of tarsus a single continuous plate except at extreme base ..... (T)

J. Front of tarsus divided into foursided scales ..... (K)

K. Bill very strongly hooked, and toothed near tip ..... **Laniidæ.**

K. Bill not hooked, or but slightly so ..... (L)

L. Tarsus not longer than middle toe with claw, bill short, depressed ..... **Ampelidæ.**

L. Tarsus longer than middle toe with claw, or else bill elongated, not depressed ..... (M)

M. Tail feathers stiff and pointed at tips ..... **Certhiidæ.**

M. Tail feathers not stiff nor especially pointed ..... (N)

N. Nasal feathers erect, not covering the nostrils ..... (O)

N. Nasal feathers directed forward, usually covering the nostrils .. (R)

O. Hind toe longer than outer toe ..... **Troglodytidæ.**

O. Hind toe not longer than outer toe ..... (P)

P. Basal joint of middle toe joined to lateral toes ... **Vireonidæ** (pt.)

P. Basal joint of middle toe mostly free from lateral toes ..... (Q)

Q. Wing under 2½ inches **Sylviidæ** (Polioptilinæ)—over 3½ inches .. **Mimidæ.**

R. Hind toe longer than outer toe, its claw large ..... **Sittidæ**

R. Hind toe not distinctly longer than outer toe ..... (S)

S. Wing under 4 inches **Paridæ**—over 4 inches ..... **Corvidæ.**

T. Without rictal bristles; nostrils linear; tail very short .. **Cinclidæ.**

T. With distinct rictal bristles; nostrils oval; tail normal ..... (U)

U. Wing under 3 inches **Sylviidæ** (Sylviinæ, Regulinæ)—over 3 inches ..... **Turdidæ.**

Family TYRANNIDÆ—Flycatchers

1. Tail very long, over 7 inches, forked for ½ its length; ashy, with scarlet sides ..... **Scissor-tailed Flycatcher.**

1. Tail shorter, under 5 inches, only slightly forked, or square ..... (2)

2. Larger, wing 3¼ to 5 inches long ..... (3)

2. Smaller, wing 3⅛ or less, down to 2½ ..... (12)

3. Crown with a concealed orange patch (4)—without a bright colored patch ..... (6)

4. Under parts whitish, without yellow; upper parts black; tail white tipped . . . . . **Kingbird.**

4. Under parts yellow except ashy throat and breast; above ashy; tail not white tipped. . . . . (5)

5. Tail slightly forked, its outer feather with entire outer web and half of the quill whitish; head, neck, and breast light ashy, that on breast lighter than that on back, the chin and throat pale ashy; wings blackish narrowly edged with paler, the tip of outer primaries narrowed gradually for some distance. . . . **Arkansas Kingbird.**

5. Tail rounded, its outer feather with quill brown and only outer edge of outer web whitish; head, neck, and breast dark ashy, breast as dark as back, chin abruptly whitish; wings brownish, broadly edged with paler, the tips of outer primaries narrowed abruptly near the end. . . . . **Cassin Kingbird.**

6. Under parts with throat and breast ashy changing to sulphur yellow on belly and under tail-coverts; wings and tail conspicuously marked with chestnut. . . . . (7)

6. Under parts not as above, without decided yellow; no chestnut on wings or tail. . . . . (8)

7. Throat and chest dark ashy, abruptly changing to bright yellow; above olivaceous brown; edgings on secondaries and coverts grayish, the chestnut on inner web of tail feathers extensive, the fuscous stripe very narrow and not widening at tip. . . . . **Great-crested Flycatcher.**

7. Throat and chest very pale ashy, former almost white, changing gradually to pale yellow; above grayish brown; edgings on secondaries and coverts yellowish, the chestnut on inner web of tail feathers narrower, the fuscous stripe wider and broadening at tip across the feather. . . . . **Ash-throated Flycatcher.**

8. Bill narrow and entirely black; wing 5 times as long as tarsus. . (9)

8. Bill broad, lower mandible more or less pale; wing 6 times as long as tarsus. . . . . (10)

9. Belly whitish; elsewhere olive-gray, the tail dusky. . . . . **Phœbe.**

9. Belly cinnamon brown; elsewhere brownish gray, the tail black. . . . . **Say Phœbe.**

10. Wing $3\frac{4}{5}$ to $4\frac{3}{10}$, averaging 4 inches; above dark olivaceous, throat whitish, breast and sides dull grayish, middle of belly abruptly yellowish white in a lengthwise streak. . . . . **Olive-sided Flycatcher.**

10. Wing $3\frac{1}{4}$ to $3\frac{1}{2}$ inches; belly without a defined yellowish white streak. . . . . (11)

11. Upper parts lighter, more olivaceous, belly more whitish, breast less olive gray; lower mandible yellowish . . . . . **Wood Pewee.**

11. Upper parts darker, more fuscous; belly more clouded, breast much more olive gray, generally solidly of that color; lower mandible brownish. . . . . **Western Wood Pewee.**

12. Under parts sulphur yellow, that on throat, breast, and sides

tinged with olive green; above dull olivaceous, not tinged with brown; lower mandible pale.....(13)

12. Under parts dull whitish, somewhat tinged with yellow on belly but never on throat.....(14)

13.. Under wing-coverts pale yellowish, wing-bands yellowish white; coloration purer and brighter, above more greenish olive, below purer yellow, the breast shaded with olive; tail longer, generally over 2¼ inches.....**Yellow-bellied Flycatcher.**

13. Under wing-coverts pale buffy, deeper on edge of wing, wing-bands buffy gray; coloration duller and more clouded, above more grayish olive, below pale dull yellow faintly clouded with dull grayish brown on the breast; tail shorter, generally under 2¼ inches.....**Western Flycatcher.**

14. Bill moderately wide, at nostrils over ½ the length.....(15)

14. Bill very narrow, at nostrils less than ½ as wide as long.....(18)

15. Above uniform olive greenish not tinged with brown; wing-bars and eye-ring tawny; below white with breast grayish, and together with sides, washed with sulphur yellow; lower mandible whitish.....**Acadian Flycatcher.**

15. Above olivaceous tinged with brown; wing-bars and eye-ring buffy whitish; below white, breast grayish, and, together with sides, very slightly yellowish; lower mandible darker.....(16)

16. Smaller, wing 2⅜ or less long; tail slightly forked; upper parts more grayish, rather ashy; wing-bars broader, dull white; eye-ring grayish white; under mandible dusky.....**Least Flycatcher.**

16. Larger, wing over 2⅜, up to 2¾ long; tail even or rounded; upper parts more brownish; wing-bars narrower, tinged with gray or buffy; eye-ring buffy white; under mandible paler..(17)

17. Above duller, more fuscous, breast more ashy and lower parts less yellowish; wing-bars duller, less conspicuous, more grayish white; bill longer and very slightly narrower, tarsus longer.**Traill Flycatcher.**

17. Above clearer, more olivaceous, lower parts more yellowish; wing-bars more olivaceous white; bill and tarsi shorter...**Alder Flycatcher.**

18. Outer web of outer tail feather not paler than inner; more olivaceous, throat grayish, eye-ring and wing-bars soiled whitish, below more yellowish; lower mandible brown.....**Hammond Flycatcher.**

18. Outer web of outer tail feather abruptly paler than inner, dull whitish; duller and grayer, throat, eye-ring and wing-bars whitish, lower parts hardly yellowish; lower mandible brown at tip only.....**Wright Flycatcher.**

443. **Muscivora forficata** (Gmelin)—Scissor-tailed Flycatcher.

Accidental. The only known instance of the occurrence of this bird in Nebraska is a single specimen seen south of Lincoln in the fall of 1872 by Bruner. There is no doubt as to the correct identification

of the species, as the view was very good and the bird known by the observer.

444. *Tyrannus tyrannus (Linnaeus)—Kingbird.

Abundant over entire state in summer, arriving the last few days in April or in early May, breeding from middle May through June, and departing the second week in September. Breeds throughout the state.

447. *Tyrannus verticalis Say—Arkansas Kingbird.

Present over entire state; an abundant breeder westward in the semi-arid districts, east to about the 100th meridian, and in the Niobrara valley to its mouth; eastwardly rare, occurring only as a migrant. Sioux, Cheyenne, and Dundy counties, east to Niobrara, Valentine, Broken Bow, Holdrege, etc.—breeding. Migrant at Omaha, Lincoln, Ashland, Fremont, West Point, Neligh, etc.

452. *Myiarchus crinitus (Linnaeus)—Great-crested Flycatcher.

A common summer resident and breeder along the Missouri and in the larger timber of its principal tributaries in eastern, and especially southeastern, Nebraska. Richardson county, Brownville, Omaha, Peru, up the Blue to Beatrice, Milford, along Salt creek to Lincoln, up the Elkhorn to West Point—breeding. Arrives first week in May, breeds in June, departs early in September.

456. *Sayornis phœbe (Latham)—Phœbe.

More eastern portions of state; abundant summer resident and breeder. Omaha, Peru, Lincoln, Beatrice, West Point, Neligh, Long Pine, Cherry county—breeding. Arrives about third week in March, breeds from middle April to middle July, departs early in September.

457. *Sayornis saya (Bonaparte)—Say Phœbe.

Like the Arkansas Kingbird this species is practically confined to the semi-arid portions of the state, but even more decidedly so. Very common summer resident and breeder, Sioux and Dundy counties, east to Chadron, Valentine, and Rock, Custer, Dawson, and Buffalo counties. Migrant in Holt county and once at Lincoln. Extending slowly eastward.

459. Nuttallornis borealis (Swainson)—Olive-sided Flycatcher.

Rather rare migrant over the state, breeding north of Nebraska. Sioux county, West Point, Lincoln, Gresham. Passes first week in May and late in September.

461. *Contopus virens (Linnaeus)—Wood Pewee.

Eastern edge of state, common summer resident and breeder, arriving second week in May, breeding in June, and departing late in August. Omaha, Peru, Lincoln, Beatrice, Weeping Water, Nebraska City, Dakota City, etc.

462. Contopus richardsonii (Swainson)—Western Wood Pewee.

Common summer resident in Sioux County, east, but not common,

to Dismal river, Thomas county. Aughey reports it also from Sidney and the Wood river, the latter probably in Custer or Dawson counties. Very likely breeds in the state.

463. **Empidonax flaviventris** Baird—Yellow-bellied Flycatcher.

Aughey states that this flycatcher is present sparingly in eastern Nebraska and that he has known it to breed along the Missouri, but he does not give his evidence, and the latter statement is probably a mistake. He shot one near Dakota City in July, 1870. It has been noted once at both Lincoln and West Point as a migrant by Bruner. It is, however, quite rare.

465. ***Empidonax virescens** (Vieillot)—Acadian Flycatcher.

Whole of state, breeding commonly along the Missouri, less commonly along the lower Platte and the Elkhorn. Omaha, West Point, Sioux county. Arrives second week in May, breeds in June, departs early in September.

466. ***Empidonax traillii** (Audubon)—Traill Flycatcher.

Entire state, common, arrives first week in May or a day or so previously, breeds in June, and departs early in September. Omaha, Peru, Nebraska City, Lincoln, Neligh, Sioux county.

467. ***Empidonax minimus** Baird—Least Flycatcher.

Eastern Nebraska rather rare; breeding along the Missouri river. Omaha, Dakota City—breeding. Migrant at Lincoln, West Point, and Neligh. Dates same as preceding.

EXTRALIMITAL: 448. *T. vociferans* Swainson, the Cassin Kingbird, is a common summer resident in Colorado down to the foothills and is present, though uncommon, at Cheyenne, Wyo. It may straggle to western Nebraska during migration. 454. *M. cinerascens* (Lawrence), the Ash-throated Flycatcher, has been taken at Cheyenne, Wyo. 464. *E. difficilis* Baird, the Western Flycatcher, represents the Yellow-bellied in the western United States. It is common in summer in Colorado, occurs in eastern Wyoming, and may reach western Nebraska during migrations. 466a. *E. t. alnorum* Brewster, the Alder Flycatcher, is a scarcely distinct form occurring in eastern United States west to Michigan, but specimens from Sioux county, in extreme northwest Nebraska, have been identified at Washington as *alnorum*. Owing to the extreme distance from the limits of its accepted range it is not included as a Nebraska bird. Two small western Empidonaces, 468. *E. hammondi* (Xantus), the Hammond Flycatcher, and 496. *E. wrightii* Baird, the Wright Flycatcher, especially the latter species, are apt to straggle into western Nebraska during migrations. Both occur in Colorado and Wyoming, *wrightii* abundantly and even to Cheyenne.

Family **ALAUDIDÆ**—Larks

1. Larger, wing $4\frac{1}{5}$ to $4\frac{3}{5}$, averaging $4\frac{2}{5}$ inches, upper parts darker, more rufescent and less pinkish.....(2)

1. Smaller, wing 4 to $4\frac{3}{5}$, averaging $4\frac{1}{5}$ inches; upper parts paler, more grayish and pinkish. . . . . (3)
   2. Throat, forehead, and line over eye deep yellow, this color often suffusing rest of crown, occiput and auriculars. **Horned Lark.**
   2. Throat pale yellow at least centrally, forehead, line over eye, and rest of pale areas on head white. . . . . **Hoyt Horned Lark.**
3. Throat yellowish white, the line over eye usually yellowish; upper parts paler, more sandy brown than blackish; nape, upper tail-coverts, and bend of wing more pinkish. . . . . **Desert Horned Lark.**
3. Throat pale yellow, the line over eye usually all white; upper parts darker, more blackish than brown; nape, upper tail-coverts and bend of wing less pinkish. . . . . **Prairie Horned Lark.**

474. **Otocoris alpestris** (Linnaeus)—Horned Lark.

The typical form, breeding from Labrador to Hudson bay, in winter descends chiefly along the Atlantic coast, but occasionally in the Mississippi valley also to Illinois. A single specimen, taken at Lincoln by a student in the taxidermy class (full data unfortunately lost) has been identified by Oberholser as typical *alpestris*. This record extends the known winter range of this species considerably westward.

474b. ***Otocoris alpestris praticola** Henshaw—Prairie Horned Lark.

Eastern and especially southeastern Nebraska; common resident; in summer rare west of the 97th meridian, in winter straggling westward half way across the state. Breeds from late March to well into July. Omaha, Peru, Lincoln, Beatrice, West Point—breeding.

474c. ***Otocoris alpestris leucolæma** (Coues)—Desert Horned Lark.

Greater portion of state especially westward; an abundant resident, breeding east to at least the 99th meridian and northward even farther, in winter over whole state but uncommon eastward. Sioux, Cheyenne, Dundy, and Cherry counties, to Niobrara, Neligh, etc.—breeding. Under this name are included those specimens referable to Oberholser's form *enthymia* which he has identified from specimens taken at Valentine and Harrison.

474k. **Otocoris alpestris hoyti** Bishop—Hoyt Horned Lark.

Regular winter visitant, occurring over the entire state, never so common as the two preceding forms and appearing usually in February. Breeds far north, from Hudson bay to the Mackenzie river and south to Lake Athabasca. Oberholser has identified it from Papillion, Platte Center, and Lincoln. It is here that most, if not all, of the previous Nebraska records of the typical *alpestris* and of the large so-called *"leucolæma"* (=*arcticola*) belong. Omaha, West Point, Covington.

Family **CORVIDÆ**—Jays, Crows, Magpies, Etc.

1. Color wholly black (2)—mostly blue (5)—neither wholly black nor mostly blue. . . . . (9)

2. Throat feathers oval, blended; bill under 2 inches, wing 12 to 14 inches. . . . . **Crow.**
2. Throat feathers narrow, pointed, separated; bill over 2, wing over 13 inches. . . . . (3)
3. Wing 13 to 14 inches long; hind neck with feathers white at base. . . . . **White-necked Raven.**
3. Wing 16 to 18 inches long; hind neck feathers without white. . . . . (4)
4. Larger, bill $2\frac{3}{8}$ to $3\frac{1}{4}$, averaging about 3 inches, over 1 inch deep at nostrils. . . . . **Northern Raven.**
4. Smaller, bill $2\frac{1}{8}$ to 3, averaging $2\frac{1}{4}$ inches, under 1 inch deep at nostrils. . . . . **American Raven.**
5. Head crested (6)—not crested. . . . . (8)
6. Crest purplish blue, throat white with a black collar and frontlet; wings and tail blue. . . . . **Blue Jay.**
6. Crest, head, neck, and upper chest and back blackish or brownish; rump, belly, wings, and tail dark blue. . . . . (7)
7. White spot over eye smaller, streaks on forehead light blue, (both sometimes indistinct); greater wing-coverts not barred. . . . . **Black-headed Jay.**
7. White spot over eye conspicuous, streaks on forehead bluish white or pure white (never indistinct); greater wing-coverts barred with black. . . . . **Long-crested Jay.**
8. Wholly dull blue, brighter on head, duller on belly, throat white-streaked . . . . . **Pinion Jay.**
8. Below gray, under tail-coverts blue, with streaks on breast and tinge of belly same color; back grayish blue with crown, nape, wings, and tail pure blue. . . . . **Woodhouse Jay.**
9. Black; shoulders, lower back, under parts, and wing tips white; tail 9 to 12 inches. . . . . **Magpie.**
9. Gray; wings black, tail white with middle feathers black; tail 5 inches . . . . . **Clarke Nutcracker.**
9. Gray; head mostly white, lower parts ashy, tail narrowly white tipped. (10)
10. Occiput and hind crown blackish, this reaching to (often encircling) the eye; in young crown colored as back. . . . **Canada Jay.**
10. Occiput only plumbeous gray, this not reaching to eye; young with crown white tinged with grayish brown. . . . . **Rocky Mountain Jay.**

475. ***Pica pica hudsonica** (Sabine)—Magpie.

Resident. Formerly present over entire state (Norfolk, West Point, Beatrice, Plattsmouth, Dixon county), now restricted to western and especially northwestern portion of state, where it is still common; breeding in Sioux and Dawes counties, in winter east to Long Pine and Badger in the Niobrara valley.

477. ***Cyanocitta cristata** (Linnaeus)—Blue Jay.

Entire state, resident, abundant eastward, uncommon westward. Though present in winter, the majority retire farther south at that

season, returning about middle April, breeding in May, and leaving again in late October. Spreading westward rapidly.

478c. **Cyanocitta stelleri annectens** (Baird)—Black-headed Jay.

One record for the state, a bird seen in Sioux county on the timber reserve west of Fort Robinson in April, 1891, by Bruner. This bird is common in eastern Wyoming. The Long-crested Jay, 478b. *C. s. diademata* (Bonaparte), is the Colorado form, occurring also in southern Wyoming and might occur in winter in southwestern Nebraska.

[480. **Aphelocoma woodhouseii** (Baird)—Woodhouse Jay. This was recorded in Bruner's list as a common "transient visitor" at North Platte by M. K. Barnum, but it was confused with the Piñon Jay. The Woodhouse Jay, however, is a common resident in Colorado, and has been taken from October to April at Fort Lyon, so may occasionally reach the state.]

484. **Perisoreus canadensis** (Linnaeus)—Canada Jay.

Very rare winter visitor. The only record is the one by Bruner, who saw a specimen of this bird at West Point either the last few days in February or in early March, 1886. There is no question as to identification as the bird was approached to within a few feet.

484a. **Perisoreus canadensis capitalis** Ridgway—Rocky Mountain Jay.

Probably a regular winter visitant to northwest Nebraska. Bruner has noted it three times—near Belmont in the spring of 1889, at the timber reservation west of Ft. Robinson in April, 1891, and at the head of Monroe canyon in February, 1896.

486. **Corvus corax sinuatus** (Wagler)—American Raven.

Formerly frequent, now very rare if not extinct in the state. Aughey says it "was formerly frequently seen in Nebraska, especially in its northern part; latterly (1877) seldom met with." He examined a single one in June, 1865. Bruner has noted it in Brown county and near Sidney. L. Skow reports it from Omaha. Whether any of these records pertain to the eastern form (468a. *C. c. principalis* Ridgway) can not now be determined beyond doubt, but it is not probable that they do.

487. **Corvus cryptoleucus** Couch—White-necked Raven.

Aughey states that he saw this raven but once in Nebraska, on the Republican river near the west line of the state in April, 1877. Bruner noted it once near Sidney. Now probably extinct within our borders.

488. ***Corvus brachyrhynchos** C. L. Brehm—Crow.

Resident over the whole state, abundant eastward, becoming rare westward, but steadily spreading in that direction. Rare west of 98th meridian, but reaching regularly up the Niobrara to Long Pine; only once seen at Crawford till Aug., 1903, when Bruner observed

a flock of about a dozen twelve miles west, at Glen. Breeds from early April to late in June.

491. **Nucifraga columbiana** (Wilson)—Clarke Nutcracker.

Northwestern Nebraska; occasionally seen in summer on Pine ridge where it may breed. In fall and winter spreading south and east to Sidney, Kearney, North Platte, and even to Omaha.

492. ***Cyanocephalus cyanocephalus** (Wied)—Pinion Jay.

Common resident, spending the summer and occasionally breeding along Pine Ridge in Sioux, Dawes, and Sheridan counties; in winter wandering in flocks eastward to Cherry county, Long Pine, North Platte, Fullerton, etc.

Family **ICTERIDÆ**—Blackbirds, Orioles, and Meadowlarks

1. Body deep black with conspicuously contrasting, sharply defined, unbroken patches of bright yellow, scarlet, white, or chestnut somewhere, and without streaks. . . . . (2)
1. Body entirely deep black, brownish, or slaty grayish, unstreaked and without an unbroken patch of bright color anywhere, though sometimes varied with broken rusty or yellowish which is never sharply defined. . . . . (7)
1. Body above brownish or dusky streaked, below lighter with conspicuous streaks on the sides. . . . . (11)
1. Body olivaceous above and dull yellow or orange below, unstreaked . . (15)
2. Belly deep black; marsh birds (3)—uniform chestnut or orange; arboreal birds. . . . . (5)
3. Black; rump, and shoulders white, back neck buffy white; tail feathers acute at tip. . . . . **Bobolink,** male.
3. Black; head, and breast yellow except some black around bill; a white wing-patch. . . . . **Yellow-headed Blackbird,** male.
3. Black; shoulders scarlet bordered by buffy . . . . . (4)
4. Smaller, with a longer, slenderer bill; wing about $4\frac{1}{5}$, depth of bill at base about $\frac{1}{2}$ inch; middle wing-coverts paler buff in winter. . . . . **Red-winged Blackbird,** male.
4. Larger, with a shorter, thicker bill; wing about 5 inches, depth of bill at base decidedly over $\frac{1}{2}$ inch; middle wing-coverts deeper buff in winter. . . . . **Northern Redwing,** male.
5. Black; with breast, belly, lower back, and rump chestnut . . . . . **Orchard Oriole,** male.
5. Black; with breast, belly, lower back, and rump with most of tail orange. . . . . (6)
6. Head entirely black, outer tail feathers orange with some black at base and greater wing-coverts black broadly edged with white. . . . . **Baltimore Oriole,** male.
6. Head black with cheeks and line over eyes yellow, outer tail feathers with the black near the tip, and a large wholly white patch on greater wing-coverts. . . . . **Bullock Oriole,** male.
7. Tail rounded, the outer feathers about an inch shorter than inner

ones; male black with head metallic bluish purple, back metallic bronze, wings and tail metallic purplish black; female similar but duller, and less metallic; iris white. . . . . **Bronzed Grackle.**

7. Tail square, the outer feathers almost or quite as long as inner ones. . . (8)
   8. Brownish above and below with a yellowish throat and breast. . . . . **Yellow-headed Blackbird,** female.
   8. Black, brownish or slaty, without any yellowish anywhere. . . . (9)
9. Bill short and thick, its depth over half its length, plumage never rusty; male entirely glossy blue-black with brown head and neck; female entirely brownish gray. . . . . **Cowbird.**
9. Bill long and slender, its depth about half its length or less, plumage often with rusty. . . . . (10)
   10. Male black with a faint green gloss, and a faint blue gloss on head, in winter upper parts conspicuously varied with rusty; female entirely dull slate, varied with rusty in winter. . . . . **Rusty Blackbird.**
   10. Male black with a deep green gloss, head and neck with a beautiful violet iridescence, in winter faintly varied with grayish brown; female brownish gray without any rusty even in winter. . . . . **Brewer Blackbird.**
11. Under parts mostly bright yellow, with a conspicuous black crescent on throat. . . . . (12)
11. Under parts pale yellowish or buffy without a black throat crescent. . (13)
   12. Yellow of throat confined to space between the maxillæ; upper parts dark brown with conspicuous black stripes; middle tail feathers with more or less confluent black bars not reaching to edge of feather. . . . . **Meadowlark.**
   12. Yellow of throat spreading on cheeks; upper parts pale gray, more barred than striped; middle tail feathers with broken bars crossing entire feather. . . . . **Western Meadowlark.**
13. Back buffy olive, streaked with black, whole under parts yellowish or buffy; tail feathers stiff and pointed. . . . . **Bobolink,** female.
13. Back dusky, streaked with rusty and buffy, under parts dull white streaked with black, sometimes a buffy or pinkish tinge on throat; tail feathers blunt and soft. . . . . (14)
   14. Smaller, with a longer, slenderer bill, wing under 4 inches, depth of bill at base about $\frac{3}{5}$ inch; chin and throat seldom pinkish, and then less deeply or extensively so. . . . . **Red-winged Blackbird,** female.
   14. Larger, with a shorter, thicker bill; wing over 4 inches, depth of bill at base decidedly over $\frac{3}{5}$ inch; chin and throat generally pinkish, this color deeper and more extensive. . . . . **Northern Redwing,** female.
15. Tail and its upper coverts olive greenish tinged slightly with yellowish; female with throat dull yellow, young male with throat black. . . . . **Orchard Oriole,** female and immature male.
15. Tail and its upper coverts dull yellow. . . . . (16)

16. Crown olive-gray without blackish spots, or sides of head dull orange with a stripe over the eye of the same color; upper parts paler and grayer . **Bullock Oriole,** female and immature male.

16. Crown streaked or spotted with black, sometimes wholly black, or sides of head dusky and no stripe over eye; upper parts darker, more olivaceous. . . . . .**Baltimore Oriole,** female and immature male.

494. ***Dolichonyx oryzivorus** (Linnaeus)—Bobolink.

Present and breeding in suitable localities over the state, locally abundant, especially in the sand-hill lake region. Arrives first week in May, breeds from late May to middle June, departs in middle September. Cherry and Holt counties, North Platte—abundant breeder. Omaha, Lincoln, Beatrice, Gresham, Scribner, Norfolk, York, Neligh—occasional breeder.

495. ***Molothrus ater** (Boddært)—Cowbird.

Entire state, abundant; arriving about the third week in March or a little earlier, breeding (parasitically) throughout the season, remaining commonly until late October or early November.

497. ***Xanthocephalus xanthocephalus** (Bonaparte) —Yellow-headed Blackbird.

Whole of the state, abundant migrant and (locally) summer resident and breeder, especially in the lakes of the sand-hill region. Omaha, Lincoln, Peru, West Point, Neligh, York, and west to Dundy county—occasional to common breeder. Arrives second week in April, breeds in May, departs in late October.

498. ***Agelaius phœniceus** (Linnaeus)—Red-winged Blackbird.

A common to abundant summer resident and breeder over entire state in the vicinity of marshy ground. Arrives first or second week in March, breeds from middle May to middle July, departs in early November, a few remaining all winter.

498d. **Agelaius phœniceus fortis** Ridgway—Northern Redwing.

Common migrant. The type of this new form was taken at Omaha, March 9, from migrating individuals, the breeding range being the far northern "interior districts of British America." In migrations it extends over the whole region from the Rockies to the Mississippi.

501. **Sturnella magna** (Linnaeus)—Meadowlark.

Although nearly all our meadowlarks belong to the following species, there is yet an occasional occurrence of typical *magna* or specimens nearer *magna* than *neglecta* in extreme eastern Nebraska. Such specimens have been noted several times at Omaha, and on March 18, 1903, a bird evidently *magna* by both appearance and song was carefully observed by both Wolcott and Swenk near the lake west of Lincoln. It is, however, rare, and its breeding doubtful.

501b. *Sturnella magna neglecta (Audubon)—Western Meadowlark.

Abundant throughout the state, arriving the first week in March, breeding from the latter part of April to the middle of July, the majority departing south of the state late in October, but a considerable number remaining in flocks through the winter. The meadowlarks from the lake region of Cherry county, differ from both the two forms here referred to in certain ways, but the sending of specimens east has so far failed to satisfactorily settle their relationship.

506. *Icterus spurius (Linnaeus)—Orchard Oriole.

Eastern Nebraska, common summer resident and breeder west to 100th meridian or a little farther. Arrives first of May, breeds in June, leaves second week in September. Omaha, Peru, Lincoln, West Point, Neligh, Niobrara valley, Cherry county, North Platte.

507. *Icterus galbula (Linnaeus)—Baltimore Oriole.

Eastern Nebraska, west about as far as preceding, apparently commoner than *spurius*, its dates practically the same. Omaha, Lincoln West Point, Neligh, Niobrara valley to Valentine, North Platte.

508. *Icterus bullocki (Swainson)—Bullock Oriole.

Western Nebraska, east to about western limit of *galbula* which it replaces westward. It is a common breeder in Sioux, Dawes, and Scott's Bluff counties, nesting mostly in cottonwoods. Also Dundy county to McCook and Cherry county to Long Pine, Carns—breeding. Once taken migrating at West Point.

509. Euphagus carolinus (Mueller)—Rusty Blackbird.

Common migrant and occasional winter resident over about the eastern half of the state, appearing in early October and remaining well into April. Omaha, Lincoln, Beatrice, West Point, Neligh, Long Pine, Cherry County, etc.

510. *Euphagus cyanocephalus (Wagler)—Brewer Blackbird.

Common summer resident and breeder in Sioux county, in migrations over entire state. Cherry and Holt counties, Neligh, West Point, York, Lincoln, Omaha—migratory, passing in October and latter part of March and in Aprl.

511b. *Quiscalus quiscula æneus (Ridgway)—Bronzed Grackle.

Abundant summer resident and breeder over entire state, not so common westward; arriving the third week in March, breeding during May, departing in large flocks in late October and early November. A very few winter along the southern border of state. To this form belong all Nebraska records of the "Purple" Grackle, the eastern form, which is accidental west of the Alleghanies.

Family FRINGILLIDÆ—Finches, Sparrows, and Grosbeaks

1. Bill very large, almost as deep at base as tarsus is long; male yellow and black, female grayish and black; winter visitor. . . . . (2)
1. Bill much shallower, its depth at base decidedly less than length of

tarsus; nostrils more or less concealed by one or two tufts of forwardly directed plumules; winter birds.....(3)

1. Bill also shallower, but nostrils exposed, or at least without distinct tufts of plumules; mostly summer birds.....(23)

2. Bill shorter and stouter, the culmen generally under $\frac{4}{5}$ inch; male with yellow stripe on forehead broader, generally over $\frac{1}{3}$ inch; female grayer below.....**Evening Grosbeak.**

2. Bill longer and narrower; culmen generally over $\frac{4}{5}$ inch; male with the forehead stripe generally under $\frac{1}{5}$ inch, female more buffy below.....**Western Evening Grosbeak.**

3 Tips of bill distinctly crossed (4)—not crossed.....(6)

4. Wings black with two distinct white bars. .**White-winged Crossbill.**

4. Wings dusky, not barred.....(5)

5. Smaller, wing of male about $3\frac{1}{2}$ inches and culmen under $\frac{3}{5}$ inch, colors duller.....**Red Crossbill.**

5. Larger, wing of male about $3\frac{3}{4}$ inches and culmen over $\frac{3}{5}$ inch; colors brighter.....**Mexican Crossbill.**

6. Bill very short and thick, the culmen much curved; size very large, the tail over $3\frac{1}{2}$ inches long.....(7)

6. Bill conical, the culmen but slightly curved; size smaller, the tail less than $3\frac{1}{2}$ inches long.....(8)

7. Bill shorter and thicker; the culmen in male about $\frac{3}{5}$ inch, and dusky centers to back feathers more pronounced, the breast and sides more uniformly and extensively red.....**Pine Grosbeak.**

7. Bill longer and narrower; culmen in male somewhat over $\frac{3}{5}$ inch, the dusky centers to back feathers nearly obsolete, the under parts less extensively red, more or less broken even on the breast .....**Mountain Pine Grosbeak.**

8. Crown from eye backward pure ash gray; general color chestnut and rosy.....(9)

8. Crown not ash gray.....(10)

9. Gray of crown not spreading on sides of head below eyes.....**Gray-crowned Leucosticte.**

9. Gray of crown spreading over more or less of sides of head below eyes .....**Hepburn Leucosticte.**

10. Top of head some shade of red, either wholly or in part (11)—without any red.....(16)

11. Chin blackish (12)—not blackish.....(14)

12. Under tail-coverts and rump unstreaked; back feathers bordered with hoary.....**Hoary Redpoll.**

12. Under tail-coverts and rump streaked; back feathers bordered with brownish.....(13)

13. Larger (wing about $3\frac{1}{4}$ long) with heavier bill (depth at base over $\frac{1}{4}$ inch); back darker and sides more heavily streaked.**Greater Redpoll.**

13. Smaller (wing $2\frac{3}{4}$ to 3 long) with slenderer bill (under $\frac{1}{4}$ inch); back paler, sides less streaked.....**Redpoll.**

14. Whole crown red; wing feathers edged with reddish.....(15)

14. Only forehead and superciliary stripe red; wing feathers edged with grayish. . . . . **House Finch,** male.

15. Crimson of crown deeper than rest of body; under tail-coverts streaked. . . . . **Cassin Purple Finch,** male.

15. Purple of crown same shade as rest of body; under tail-coverts unstreaked. . . . . **Purple Finch,** male.

16. Back not streaked (17)—back streaked. . . . . (19)

17. Back yellow or brown; male yellow with black crown and wings, female brownish above, white below. . . . . (18)

17. Back olive-green; yellow below, with a white wing spot; male with crown black . . . . . **Arkansas Goldfinch.**

18. Larger (wing 3 inches, tail 2); paler, more extended white markings. . . . . **Western Goldfinch.**

18. Smaller (less than above); darker, more restricted white markings. . . . . **Goldfinch.**

19. Not streaked below; white marked with brown and black. **Snow Bunting.**

19. Streaked below. . . . . (20)

20. Yellow bars on wings and tail; very streaky; wing under 3 inches. . . . . **Pine Siskin.**

20. No yellow bars; wing over 3 inches. . . . . (21)

21. Tail not notched—**House Finch,** female—tail deeply notched. . . . . (22)

22. Under tail-coverts streaked. . . . . **Cassin Purple Finch,** female.

22. Under tail-coverts unstreaked. . . . . **Purple Finch,** female.

23. Head conspicuously crested; male red, female gray and red. . . **Cardinal.**

23. Head not crested. . . . . (24)

24. Front claws small, little curved; hind claw straight, longer than toe. . . . . (25)

24. Front claws larger, curved; hind claw curved, either shorter than toe or very stout. . . . . (29)

25. Tail white except two middle feathers and a broad dusky tip; bill stout. . . . . **McCown Longspur.**

25. Tail with outer feathers mostly white without dark tip, inner ones mostly dark; bill rather slenderer. . . . . (26)

26. Four outer tail feathers with much white at base. . . . . **Chestnut-collared Longspur.**

26. Outer tail feathers dusky at base, only two with white. . . . . (27)

27. Under parts buffy; second outer tail feather mostly white. . . . . **Painted Longspur.**

27. Under parts white; second outer tail feather with little white. . . . . (28)

28. Darker and browner; back more heavily streaked, with the dark centers of feathers broader than the light brown edgings . . . . . **Lapland Longspur.**

28. Lighter and more buffy; back less heavily streaked, with dark centers of feathers narrower than the pale grayish buffy edgings. . . . . **Alaskan Longspur.**

29. Upper parts not dark streaked; sometimes with white ones. . . . . (30)

29. Upper parts decidedly, generally conspicuously, darker streaked, never with white ones. . . . . (52)
30. Outer tail feathers with a conspicuous amount of white (31)—without white. . . . . (42)
31. Plain dark and white, without any bright red, brown or yellow; tail under 3 inches. . . . . (32)
31. Some bright red, brown or yellow in plumage; tail over 3 inches. . . . (39)
32. Three outer tail feathers white; generally two white wing-bands. . . . . **White-winged Junco.**
32. Third outer tail feather mostly dark; no wing-bands. . . . . (33)
33. Sides gray like chest, with no pinkish tinge. . . . . (34)
33. Sides pinkish, cinnamon or buffy. . . . . (35)
34. Back with a triangular cinnamon rufous patch; head ashy. . . . . **Gray-headed Junco.**
34. Back plain slate or slightly brownish tinged; head slate. . . . . **Slate-colored Junco.**
35. Head, neck and upper chest sooty black; a squarish brownish back patch. . . . . **Shufeldt Junco,** male.
35. Head, neck, and chest gray or slaty. . . . . (36)
36. Second outer tail feather nearly or entirely white; throat and chest ashy. . . . . **Pink-sided Junco.**
36. Second outer tail feather with much dark; throat and chest slaty. . . . . (37)
37. Wing 3 inches or less long (38)—wing 3 to 3¼ long. . **Montana Junco,** male.
38. Throat and chest grayish slate. . . . . **Shufeldt Junco,** female.
38. Same parts ash-gray or slaty-gray. . . . . **Montana Junco,** female.
39. Plumage mostly black and white; under wing-coverts and breast rose. . . . . **Rose-breasted Grosbeak,** male.
39. Plumage mostly black and white; under wing-coverts yellow, breast tawny. . . . . **Black-headed Grosbeak,** male.
39. Under wing-coverts white; upper parts largely black, sides chestnut-brown. . . . . (40)
40. Head and back solid black without white streaks. . . . . **Towhee.**
40. Head and back black, the latter streaked with white and often with brownish edgings to feathers. . . . . (41)
41. Outer web of primaries with white edging often forming a patch; whole outer web of outer tail feather white, the white patch on inner web generally over 1¼ inches long; hind claw moderate. . . . . **Arctic Towhee.**
41. Outer web or primaries without distinct white edging, never forming a patch; only outer edge of outer web of outer tail feather white, the white patch on inner web generally under 1¼ inches long; hind claw large, stout. . . . . **Spurred Towhee.**
42. Olive green above, whitish below, crown reddish. . . . . **Green-tailed Towhee.**
42. Not olive green above, or if so, no reddish crown. . . . . (43)
43. Black, with a large white wing-spot. . . . . **Lark Bunting,** male

43. Not pure black and white.....(44)
    44. Throat distinctly streaked; above plain brown. **Canyon Towhee.**
    44. Throat never streaked; male with much blue, female brownish above, light below.....(45)
45. Larger, with wing over 3 inches long; conspicuous chestnut wing-bands.....**Western Blue Grosbeak.**
45. Smaller, wing under 3 inches; no chestnut wing-bands.....(46)
    46. Wing with two white wing-bars; male head and neck blue, belly white; female brown above, white below. . **Lazuli Bunting.**
    46. Wing without white bars.....(47)
47. Wholly bright blue—**Indigo Bunting,** male—under parts not blue..(48)
    48. Throat red (49)—throat not red.....(50)
49. Under parts vermillion, back green, rump red..**Painted Bunting,** male.
49. Under parts purple, back red, rump blue.....**Varied Bunting,** male.
    50. Under parts whitish (51)—under parts yellowish.....
    .....**Painted Bunting,** female.
51. Chest streaked—**Indigo Bunting,** female—chest not streaked.....
    .....**Varied Bunting,** female.
    52. Outer pair of tail feathers decidedly shorter than the middle pair, making the tail plainly rounded.....(53)
    52. Outer pair of tail feathers not decidedly shorter than middle pair, making the tail even or double rounded.....(70)
53. Outer tail feathers with a broad white tip (54)—without white.....(55)
    54. Upper parts darker, with the streaks comparatively broad, the chestnut markings on head darker and more extensive black streaking through and below eye.....**Lark Sparrow.**
    54. Upper parts paler, with much narrower and sharper streaks, the chestnut on head paler, and black more restricted....
    .....**Western Lark Sparrow.**
55. Tail feathers very narrow, the tips pointed and stiff; marsh sparrows.....(56)
55. Tail feathers either broad or narrow, but tips bluntly rounded and not stiff.....(59)
    56. Crown with an indistinct bluish median stripe; back without chestnut; feet dark.....**Nelson Sparrow.**
    56. Crown with a distinct brownish or buffy median stripe; back marked with chestnut; feet pale.....(57)
57. Tail as long as wing; edge of wing white; nape bright rufous streaked with black; stripe over eye bright buffy.....
    .....**Leconte Sparrow.**
57. Tail shorter than wing; edge of wing pale yellow; nape pale olive green streaked with black; stripe over eye olive.....(58)
    58. Darker above, with chestnut of back darker and more extensive; under parts more buffy.....**Henslow Sparrow.**
    58. Paler above, with chestnut of back paler and more restricted; under parts whiter.....**Western Henslow Sparrow.**

59. Some distinct yellow on head and bend of wing (60)—no yellow anywhere ..... (63)

60. Bend of wing yellow, but none on head (61)—head with yellow ..... (62)

61. Back spotted and barred but not streaked with dusky; flanks broadly streaked with rusty; tail feathers lightly barred with dusky ..... **Cassin Sparrow.**

61. Back indistinctly streaked with rusty on a gray background, these streaks rarely with dusky centers; flanks not streaked and tail feathers with no indication of bars ..... **Bachman Sparrow.**

62. Front of median crown-stripe yellow; throat colored as chest ..... **Golden-crowned Sparrow.**

62. Upper lores yellow but none on median crown-stripe; a conspicuously contrasting, square, white throat-patch ..... **White-throated Sparrow.**

63. Crown either without median stripe, or the stripe very broad and pure white, bordered with black ..... (64)

63. Crown rufous with a lighter but not white, narrow median stripe .. (66)

64. With a median stripe (65)—without a median stripe, often solid black ..... **Harris Sparrow.**

65. Upper half of lores black or brown, cutting the white superciliary stripe ..... **White-crowned Sparrow.**

65 Upper half of lores white or ashy, continuous with the superciliary stripe ..... **Intermediate Sparrow.**

66. Lower parts not distinctly streaked; crown and back largely chestnut ..... **Swamp Sparrow.**

66. Lower parts conspicuously streaked ..... (67)

67. Breast finely marked with narrow sharp streaks not tending to form a central spot and crossed by a broad cream buff band ..... **Lincoln Sparrow.**

67. Breast rather heavily marked, these streaks forming or tending to form a central spot, no buff band ..... (68)

68. Larger; tail generally over $1\frac{3}{5}$ inches long, and bill slenderer, less than $\frac{1}{3}$ inch deep at base ..... **Mountain Song Sparrow.**

68. Smaller; tail generally under $1\frac{3}{5}$ inches, and bill about $\frac{1}{3}$ inch deep at base ..... (69)

69. Upper parts paler, more gray, with very little or no rusty; superciliary stripe and sides of neck whitish; lower parts averaging less spotted ..... **Dakota Song Sparrow.**

69. Upper parts darker, with a conspicuous amount of rusty; superciliary stripe and sides of neck olive-grayish; lower parts averaging more spotted ..... **Song Sparrow.**

70. Lower parts not distinctly streaked (71)—distinctly streaked (84)

71. Edge of wing pure white (72)—yellow or yellowish ..... (81)

72. Upper tail-coverts covering half of tail; a white wing-bar; male with throat black ..... (73)

72. Upper tail-coverts covering less than half of tail ..... (74)

73. Crown grayish or olive—**English Sparrow**—chocolate brown . . . . . **European Tree Sparrow.**

74. Crown grayish, streaked with black in adult . . . . . (75)

74. Crown reddish, either wholly chestnut or speckled with rusty in adult . . . . . (76)

75. Crown with a distinct gray median stripe. . . . . **Clay-colored Sparrow.**

75. Crown streaked uniformly throughout, no trace of a median stripe. . . . . **Brewer Sparrow.**

76. Breast with a dusky central spot; two wing-bands; lower mandible yellow . . . . . (77)

76. Breast without a spot. . . . . (78)

77. Darker; the black streaks on back broader, with a considerable amount of rusty, especially on scapulars; crown chestnut, median stripe but poorly defined; outer webs of tertials darker, more chestnut; edgings to tail feathers narrower, grayish; smaller, wing averaging under $2\frac{3}{4}$ inches. . . . . **Tree Sparrow.**

77. Paler; the black streaks on back narrower, with very little rusty; crown cinnamon, median stripe generally well defined, grayish; outer web of tertials paler, more buffy; edgings to tail feathers broader, almost white, larger, wing averaging over $2\frac{3}{4}$ inches. . . . . **Western Tree Sparrow.**

78. A black line through eye; crown bright chestnut in adult (young with crown brownish and breast streaked) . . . . . (79)

78. No black line through eye; crown rusty . . . . . (80)

79. Darker; ground color of back dark brown or rusty, crown darker chestnut, rump and sides of head mouse gray, black stripe behind eye broader; smaller, wing averaging under $2\frac{1}{4}$ inches. . . . . **Chipping Sparrow.**

79. Paler; ground color of back pale brown without rusty, crown paler chestnut, rump and sides of head paler gray, black stripe behind eye narrower; larger, wing averaging over $2\frac{3}{4}$ inches. . . . . **Western Chipping Sparrow.**

80. Upper parts more rusty, the crown bright rusty, rarely with an indication of a median stripe; back with much rusty and broader black streaks, under parts, especially the breast, more buffy; decidedly smaller, wing $2\frac{1}{2}$ to $2\frac{3}{4}$ inches, tail $2\frac{1}{3}$ to $2\frac{3}{5}$ inches in length. . . . . **Field Sparrow.**

80. Upper parts grayer, the crown dull rusty, with a broad gray median stripe, sometimes almost entirely gray; back mostly grayish, with narrower black streaks; under parts paler, the breast tinged with gray; decidedly larger, wing $2\frac{3}{4}$ to $2\frac{4}{5}$ inches, tail $2\frac{3}{4}$ to $2\frac{4}{5}$ inches in length. . . . **Western Field Sparrow.**

81. Outer tail feather with some conspicuous white; a blackish dot on breast . . . . . **Sage Sparrow.**

81. Outer tail feather without white. . . . . (82)

82. Breast bright yellow; throat, except white chin, black. **Dickcissel.**

82. Breast without yellow; throat without black. . . . . (83)

83. Darker; with broad black centers to the feathers, the hind neck distinctly streaked, the throat and cheeks buffy; smaller, wing averaging under $2\frac{3}{5}$ inches. . . . . **Grasshopper Sparrow.**

83. Paler; with brown predominating on upper parts rather than black, the hind neck scarcely streaked, merely speckled, the throat and cheeks whitish; larger, wing averaging over $2\frac{3}{5}$ inches . . . . . **Western Grasshopper Sparrow.**

84. Outer tail feathers mostly white, bend of wing chestnut . . . . . (85)

84. Outer tail feather with little or no white, and bend of wing not chestnut . . . . . (86)

85. Darker, with broader and blacker streaking; smaller, wing averaging under $3\frac{1}{5}$, tail under $2\frac{1}{2}$ inches long. . . . . **Vesper Sparrow.**

85. Paler and grayer, the streaking much sharper and narrower, less intensely black; larger, wing averaging over $3\frac{1}{5}$, tail over $2\frac{1}{2}$ inches long. . . . . **Western Vesper Sparrow.**

86. Under wing-coverts lemon yellow. **Black-headed Grosbeak,** female.

86. Under wing-coverts orange yellow. . . . . **Rose-breasted Grosbeak,** female.

87. Wings and tail with much rusty red (88)—without rusty red. . . . . (89)

88. Color of back gray, well streaked with chestnut, with rusty red upper tail-coverts and tail. . . . . **Fox Sparrow.**

88. Color of back and rump plain unstreaked gray in strong contrast with rusty red upper tail-coverts and tail. . . . . **Slate-colored Sparrow.**

89. Bend of wing with large white patch—**Lark Bunting,** female—without white patch. . . . . (90)

90. Hind claw longer than its digit; tertials shorter than primaries; head suffused with yellow, two black stripes on crown and conspicuous maxillary and rictal stripes. . . . . **Baird Sparrow.**

90. Hind claw about as long as digit; tertials about as long as primaries. . . . . (91)

91. Darker and browner; streaking broader, superciliary stripe yellow; smaller, wing averaging under $2\frac{3}{5}$ inches, bill stouter, over $\frac{1}{4}$ inch deep at base . . . . . **Savanna Sparrow.**

91. Paler and grayer; streaking narrower, superciliary stripe less yellow, often wholly white; larger, wing averaging over $2\frac{3}{5}$ inches, bill more slender, under $\frac{1}{4}$ inch deep at base. . . . . **Western Savanna Sparrow.**

514. **Hesperiphona vespertina** (Cooper)—Evening Grosbeak.

An irregular and rather rare fall and winter visitant over the state. Has been found from October to March. Recorded from West Point, Lincoln, Omaha, Cedar Bluffs, Long Pine, and Curtis—all based on specimens taken. It is quite probable that the western subspecies, *H. v. montana* Ridgway, may occasionally make its way in winter to the western part of our state, since it is resident in Colorado and

occurs in western Kansas, but as yet no specimens of this form have been examined.

515. **Pinicola enucleator leucura** (Mueller)—Pine Grosbeak.

A rare and irregular winter visitant, occurring from November to late February or early March. Recorded from Lincoln, Omaha, Grand Island, Long Pine, Norfolk, and Neligh. As in the preceding species there is a western or mountain form, *P. e. montana* Ridgway, which may reach the western part of the state in winter, but has not yet been taken.

517. **Carpodacus purpureus** (Gmelin)—Purple Finch.

An uncommon migrant and rare winter resident. Passes through in October, November, and in April. Omaha, Lincoln, West Point, Peru, and Neligh.

[518. **Carpodacus cassini** Baird—Cassin Purple Finch. This bird has been recorded from Sioux county by J. B. White, but in absence of a specimen or further corroborative evidence it cannot be included in the check-list. However there is little doubt but that it does occur occasionally in extreme western Nebraska as well as a third member of the genus: 519. *Carpodacus mexicanus frontalis* (Say), the House Finch, which is common in eastern Colorado and southeastern Wyoming and has been taken in western Kansas in January.]

521. **Loxia curvirostra minor** (Brehm)—Red Crossbill.

An irregular, but during most years rather common, winter resident, appearing in flocks in late September or October and remaining about coniferous groves until late in April or even the end of May. Specimens from eastern Nebraska for the most part agree closely in measurements with *minor*, but those from Sioux county in winter are uniformly larger, agreeing better with Ridgway's unaccepted subspecies, *L. c. bendirei*, Bendire Crossbill, and probably representing wintering individuals of that form from the mountains. The common form, *minor*, is present throughout the summer in Sioux county feeding on pine seeds and sunflower seeds, but probably does not breed even there.

521a. **Loxia curvirostra stricklandi** Ridgway—Mexican Crossbill.

Most of the specimens of the intermediate *bendirei* agree more closely in measurements with this than with *minor*, and unless called *bendirei* must be referred to this. However, there is one specimen (a female, Neligh, Nebr., Dec. 9, 1898, Merritt Cary) which even under Ridgway's restriction must be placed here, its wing measuring 88 mm. and exposed culmen over 20 mm.

522. **Loxia leucoptera** Gmelin—White-winged Crossbill.

A rare winter visitant. Records from West Point, Omaha, and Fairbury only. At the latter place Dr. M. L. Eaton took nine specimens.

524. **Leucosticte tephracotis** Swainson—Gray-crowned Leucosticte.

An uncommon winter resident in northwestern Nebraska, and once recorded from Omaha by L. Skow, who knew it in the northwestern part of the state. Aughey records a specimen taken in June, 1865. The specimens examined, all from Sioux county, are typical *tephracotis*, but the Hepburn Leucosticte, 524a. *L. t. littoralis* (Baird), occupies much the same range in winter, and has been taken casually as far east as Minnesota, so may be reasonably expected within our limits.

528. **Acanthis linaria** (Linnaeus)—Redpoll.

An irregular winter resident, in some seasons very abundant, generally coming in large flocks anywhere between middle of October and April. Throughout the state.

[528b. **A. l. rostrata** (Coues)—Greater Redpoll. A resident in Greenland and in winter straggling southward and westward. It has been recorded from New York, Indiana, Illinois, Michigan, and even Colorado, so we may get it also. The record in Bruner's list, Trostler says was a misidentification for *linaria*. An examination of twenty specimens from this state shows all to be nearest *linaria*, though some are large enough for *holbœllii*, but probably should be considered intermediates between *linaria* and *rostrata*.]

529. ***Astragalinus tristis** (Linnaeus)—Goldfinch.

An abundant resident over the southeastern portion of the state, breeding from middle July to early September, remaining in flocks through the winter.

529a. **Astragalinus tristis pallidus** Mearns—Western Goldfinch.

Sioux county—a single specimen, May 16, 1901; also found along the Niobrara, summer of 1902, and probably the prevailing form in the northern and western portions of the state. No doubt breeds. Specimens identified by Oberholser.

533. **Spinus pinus** (Wilson)—Pine Siskin.

A common, though somewhat irregular, winter resident; appearing in early October and remaining until into May. Present all summer in the pines of Sioux county where it may breed. Omaha, Lincoln, Beatrice, West Point, Neligh, Sioux county.

000. ***Passer domesticus** (Linnaeus)—English Sparrow.

Throughout the state—abundant.

534. **Passerina nivalis** (Linnaeus)—Snow Bunting.

Entire state, irregular winter resident, present from early in November to the middle of March. Omaha, Lincoln, West Point, Gresham, Norfolk, Sidney, Sioux county. Breeds far north.

536. **Calcarius lapponicus** (Linnaeus)—Lapland Longspur.

Greater portion of the state eastward, abundant winter resident, present from middle of October to early April. Omaha, Lincoln,

Beatrice, West Point, Wood River, Neligh, Cherry county. Breeds far north.

536a. **Calcarius lapponicus alascensis** Ridgway—Alaskan Longspur.
Western Nebraska in winter, dates as preceding. In a walk from Wray, Colo. to Haigler, Neb., Nov. 16, 1901, Bruner and Wolcott found these birds lying dead by the railroad track in numbers, along with Desert Horned Larks. They had been killed by flying against the telegraph wires while circling in immense flocks.

537. **Calcarius pictus** (Swainson)—Painted Longspur.
An uncommon migrant, passing in late April and October. Recorded only from West Point and Lincoln, at the latter place several times. Specimens were secured from a flock of 50 in a corn field near Lincoln, April 20, 1901, by Cary and Carriker. Breeds far north.

538. ***Calcarius ornatus** (Townsend)—Chestnut-collared Longspur.
A common migrant and uncommon breeder; the latter only along the northern border of the state. Aughey states he has found young from June to August, while Will Colt has taken nests at Badger, Holt county. Carlos Bates found a half dozen nests between June 14 and 22, 1903, only three miles from the Nebraska line in South Dakota north of Merriman, Neb. As a migrant it occurs from middle March to late April and from early to middle October over almost the whole state. Omaha, Lincoln, Norfolk, West Point, Neligh, O'Neill, Grand Island, Albion, Cherry county—common.

539. ***Rhynchopanes mccownii** (Lawrence)—McCown Longspur.
An uncommon migrant over the state, breeding in Sioux county (See Proc. N. O. U. III, p. 74 and 84). Migrates from middle March to middle April and from late August to middle November. Breeds in June. Cherry, Harlan, and Franklin counties, Wood River, Neligh, West Point, Lincoln, Omaha.

540. ***Pocœcetes gramineus** (Gmelin)—Vesper Sparrow.
Eastern edge of state, not west of 98th meridian, very common migrant and rare breeder; arriving second week in April, breeding in late May or early June, departing in October. Omaha, Peru, Lincoln, West Point, Gresham.

540a. ***Pocœcetes gramineus confinis** Baird—Western Vesper Sparrow.
Greater part of state, abundant westwardly, breeding commonly in Sioux and Cherry counties, less numerously east to Holt county, Neligh, Harlan county, etc. Dates as preceding.

542a. **Passerculus sandwichensis savanna** (Wilson)—Savanna Sparrow.
Eastern Nebraska, not recorded west of 99th meridian; a rather abundant migrant especially eastwardly, arriving in late March or early April, passing northward to breed, returning in October. Omaha, Peru, Lincoln, West Point, Neligh, O'Neill, Wood River, etc. Occassionally seen in summer, and may breed.

542b. **Passerculus sandwichensis alaudinus** (Bonaparte)—Western Savanna Sparrow.

Entire state, occurring only as a migrant in eastern Nebraska; may rarely breed westwardly, though not known to do so. Cherry county, Neligh, Lincoln, Omaha—migrating; much the same dates as *savanna*. In a series of sixteen specimens from Lincoln taken during migrations only three can be referred to *alaudinus*, and only one of these is typical.

545. **Coturniculus bairdii** (Audubon)—Baird Sparrow.

An uncommon migrant, dates much as the Savanna Sparrow, commonest in fall. Breeds north of Nebraska. Lincoln, West Point, O'Neill—migrating.

546. **Coturniculus savannarum passerinus** (Wilson)—Grasshopper Sparrow.

An occasional specimen is taken along the eastern edge of the state apparently nearer this than the following form, though even there *bimaculatus* predominates. Omaha, Peru, Lincoln. Breeding questionable.

546a. ***Coturniculus savannarum bimaculatus** (Swainson)—Western Grasshopper Sparrow.

An abundant migrant and very common summer resident over almost entire state, arriving first week in May, breeding from late May, through June, departing in early October. Sioux, Cherry and Holt counties, Neligh, West Point, Lincoln, Beatrice—breeding.

[547. **Ammodramus henslowii** (Audubon)—Henslow Sparrow.

Has been recorded from Nebraska, and is known to occur west to Minnesota. The only specimen available has been indentified by Oberholser as the Western. It is likely that all, or most, of the records refer to that form, but until more material is examined it cannot be safely assumed that they do. Its occurrence is probably analogous to that of the Grasshopper Sparrow.]

547a. ***Ammodramus henslowii occidentalis** Brewster—Western Henslow Sparrow.

A rare migrant. Aughey "only occasionally met with this bird," and the only specimen he examined was taken at Kearney Junction in September, 1874. A specimen was taken at Lincoln, April 22, 1899, by Wolcott, and Bruner has seen it at West Point. It may occasionally breed locally in the state, since Trostler took a set of eggs, with female bird, at Omaha, belonging to this species and probably to this form.

548. **Ammodramus leconteii** (Audubon)—Leconte Sparrow.

A very common migrant, arriving in late March and early April and lingering late into May, reappearing in late September and remaining commonly until November, occasionally even to the mid-

dle of that month. Breeds north of the state. Omaha, Lincoln, West Point, Neligh, Holt and Hall counties etc.; not recorded west of 99th meridian.

[549.1. **A. nelsoni** (Allen), the Nelson Sparrow, although included in Bruner's list, has as yet no definite Nebraska record, though there is no doubt it will eventually be taken within the state, possibly breeding.]

552. ***Chondestes grammacus** (Say)—Lark Sparrow.

Eastern edge of state; an abundant migrant and summer resident, arriving first week in April, breeding in late May and June, departing by the end of September. Omaha, Peru, Beatrice, Lincoln, West Point, etc.; not occuring west of 98th meridian.

552a. ***Chondestes grammacus strigatus** (Swainson)—Western Lark Sparrow.

Greater part of state, abundant, especially westwardly, intergrading with preceding in eastern portions of state. Sioux, Dundy, and Cherry counties, east to Niobrara City, Neligh, etc., or to about the 98th meridian—breeding. Dates as preceding.

553. **Zonotrichia querula** (Nuttall)—Harris Sparrow.

An abundant migrant and common winter resident in southern portions of state, lingering until middle or late May, reappearing in middle September, largest numbers present in April and October. Not recorded west of Cherry county. Omaha, Peru, Lincoln, Beatrice, West Point, Neligh, Genoa, Wood River, etc. Breeds north of Nebraska.

554. **Zonotrichia leucophrys** (Forster)—White-crowned Sparrow.

A common migrant, arriving in middle April and lingering until well into May, reappearing in late September and remaining until November. Breeds north of Nebraska. Omaha, Lincoln, West Point, Neligh—apparently only eastern third of state.

554a. **Zonotrichia leucophrys gambelii** (Nuttall)—Intermediate Sparrow.

Migratory, not so common as preceding form, but occurring with it. Sioux and Cherry counties, Neligh, West Point, Lincoln, Crete, Omaha—migrant over entire state.

557. **Zonotrichia albicollis** (Gmelin)—White-throated Sparrow.

Eastern Nebraska; a common migrant, arriving a little earlier and departing a little later than *leucophrys* and commoner than that species. Omaha, Peru, Lincoln, West Point, Neligh, etc.

559. **Spizella monticola** (Gmelin)—Tree Sparrow.

Eastern Nebraska; an abundant winter resident, appearing first week in October and remaining well into April. Most of the specimens from the eastern part of the state are intermediate between this and the following western race, but some are practically indistinguishable from Michigan and New York birds. Breeds far north. Omaha, Lincoln, Beatrice, West Point, etc.

559a. **Spizella monticola ochracea** Brewster—Western Tree Sparrow.

Whole state in winter; abundant westward where it is apparently the only form, eastward less common, giving place to and intergrading with the preceding form. Dates as for *monticola*. Sioux and Cherry counties, Neligh, Lincoln, Omaha, etc.

560. ***Spizella socialis** (Wilson)—Chipping Sparrow.

Eastern Nebraska; arriving the middle of April, breeding in June, departing in late September. Peru, Omaha, Dakota City, West Point, Neligh, Lincoln—common as a migrant and generally as a summer resident and breeder also. Between the 98th to beyond the 103d meridians (which is much over half the length of the state), there are few records for this bird until in Sioux county where it is abundant. This, together with the fact that the western form (560a. *S. s. arizonae* Coues) is the common one in Colorado and Wyoming even within a comparatively few miles of the Nebraska line (Cheyenne, Wyoming), makes it quite probable that the birds from that region are the western subspecies. Unfortunately, there are at present no specimens to decide the question.

561. ***Spizella pallida** (Swainson)—Clay-colored Sparrow.

An abundant migrant over entire state, and, according to Aughey, an occasional breeder in the northern part. Arrives first week in May and lingers through that month, appearing again in early September and remaining through October.

562. ***Spizella breweri** Cassin—Brewer Sparrow.

Sioux county; a common summer resident and breeder locally. M. A. Carriker, Jr., found it breeding commonly along the north side of Indian creek in the summer of 1901. (See Proc. N. O. U. III, pp. 70 and 85.) J. M. Bates reports taking one specimen in Cherry county, May 16, 1891, which was sent to Washington for identification.

563. ***Spizella pusilla** (Wilson)—Field Sparrow, and

563a. ***Spizella pusilla arenacea** Chadbourne—Western Field Sparrow.

The exact status of these two races in Nebraska is still somewhat uncertain, but during migrations *arenacea* occurs over almost the entire state. It breeds abundantly along its northern border (Valentine, Long Pine, Springview, Carns, Niobrara City) and less commonly southward (Broken Bow), being present as a migrant only at Neligh, West Point, and Lincoln. Arrives in late March and early April, breeds from middle May through July, departs in late September and early October. The birds breeding at Omaha, Peru, Rulo, Weeping Water, and other points in extreme eastern Nebraska, are certainly nearer *pusilla* than *arenacea*. There are not sufficient specimens at hand to definitely state the exact ranges of each form.

566. ***Junco aikeni** Ridgway—White-winged Junco.

A rather common summer resident in Warbonnet canyon, Sioux

county, where, during 1901, it was frequently observed by Cary and Carriker and a nest with four young birds found by the latter on June 29, thus establishing it as a breeder. Later Cary found another family of young birds two miles westward in the same canyon. In winter the birds breeding in the Black hills and northern Wyoming descend to the foothills and it becomes abundant in Sioux county. Bruner found it one of the most abundant birds in the region at Fort Robinson, Dec. 12-14, 1895, and later at Harrison, Feb. 18-29, 1896.

567. **Junco hyemalis** (Linnaeus)—Slate-colored Junco.

An abundant winter resident over the state but more especially so eastward, arriving the second week in October and remaining until late in April. Both Aughey and Trostler record it as present in summer, but it probably does not breed south of northern Minnesota. Lincoln, Omaha, Rulo, Beatrice, West Point, Neligh, Long Pine, Sioux county, etc.

567b. **Junco hyemalis shufeldti** Coale—Shufeldt Junco, and

567.1. **Junco montanus** Ridgway—Montana Junco.

Under these two names should probably be placed some of the records of the "Oregon Junco," for this state. Just which one is referred to in each case is now impossible to definitely state owing to the extreme similarity of the two species, but it is certain that both are represented. The former is a northwestern species breeding from Oregon to British Columbia and east to Montana, in winter migrating south over the Rocky mountain plateau of the United States to northern Mexico, and straggling eastward. The latter species breeds from Montana and Idaho north to Alberta, migrating south in winter to Mexico and straggling eastward. Specimens of one or the other of these species have been taken as far east as Illinois, Michigan, Indiana, Massachusetts, and Maryland. A single specimen of Shufeldt Junco was taken by J. M. Bates at Long Pine and identified by Ridgway.

[568. **J. mearnsi** Ridgway—The Pink-sided Junco (= *annectens* Baird, in part) breeds in southern Idaho and Montana and winters south through Wyoming and Colorado to Mexico, and probably reaches western Nebraska during its migrations. The specimen (now unfortunately lost) recorded in Bruner's list as *annectens* was in all probability *montanus*.]

[569. **J. caniceps** (Woodhouse), The Gray-headed Junco, breeds in the mountains of southern Wyoming and Colorado, descending in winter to the foothills and straggling eastward to Michigan, so may be expected in western Nebraska in winter. The record of *caniceps* from Sioux county published in Bruner's list was based on an immature specimen of *hyemalis*.]

581. **Melospiza melodia** (Wilson)—Song Sparrow.

Arrives abundantly in late March or early April and lingers until

well into May, when it becomes rare until early September brings the fall migrants. It remains commonly all winter, and probably a few breed, especially in northern Nebraska. Entire state; resident—Omaha, Lincoln, West Point, Neligh, Long Pine, Sioux county.

581½. **Melospiza ~~melodia~~ cinerea juddi** (Bishop)—Dakota Song Sparrow.

This form, described in April, 1896, and accepted by the A. O. U. committee the following November, though rejected by both Ridgway and Oberholser, seems to be fairly well entitled to recognition. A comparison of Nebraska and Michigan specimens shows many of our birds to be decidedly paler and grayer above, with a conspicuous suppression of the rufous so evident in *melodia*, and the superciliary stripe and sides of neck whitish rather than olive grayish, thus apparently representing the form named *juddi*. Specimens sent to Oberholser were returned labelled *melodia*, though according to the judgment of Bishop himself, to whom they were later sent, they are nearer *juddi*.

583. **Melospiza lincolnii** (Audubon)—Lincoln Sparrow.

An abundant migrant over the state, passing from second week in April to middle of May and from middle of September to late in October, vere rarely wintering. Omaha, Lincoln, Peru, West Point, Neligh. Not known to breed in the state.

584. ***Melospiza georgiana** (Latham)—Swamp Sparrow.

Eastern Nebraska, west to about the 100th meridian; common migrant, arriving late in April and lingering until middle May, reappearing in middle September and remaining through October, very rarely wintering. Omaha, Peru, Lincoln, West Point, Neligh—common migrant. Cherry county, Neligh—rare breeder, nesting in June.

585. **Passerella iliaca** (Merrem)—Fox Sparrow.

A common migrant in eastern Nebraska, passing in late March and early April and again through October to middle November, rarely wintering. Omaha, Peru, Lincoln, Beatrice, West Point, Neligh. Our birds are grayer than eastern individuals, showing a decided tendency toward the following form.

585c. **Passerella iliaca schistacea** (Baird)—Slate-colored Sparrow.

Western Nebraska during migrations. According to Cooke (Birds of Colorado, p. 107), the type of this form came from Nebraska about twenty miles east of the Colorado line.

587. ***Pipilo erythrophthalmus** (Linnaeus)—Towhee.

Southeastern Nebraska; along southern border west to about 99th parallel, becoming more restricted to eastern portions northward, and replaced along northern border by the following species. Rulo, Peru, Omaha, Beatrice, Lincoln, West Point, Neligh—common breeder. Arrives in middle to late March or early April, breeds from late April to July, departs in late October or early November, a few remaining all winter.

588. *Pipilo maculatus arcticus (Swainson)—Arctic Towhee.

Northern and western Nebraska in summer, whole state during migrations. Sioux, Dawes, and Cherry counties, and east in Niobrara valley to its mouth, southward principally west of 100th parallel—abundant breeder. West Point, Lincoln, Beatrice, Omaha—abundant migrant. Arrives later than preceding species, about first week in April, and lingers through that month, in eastern parts of state, appearing again in larger numbers during October, rarely wintering. Some Sioux county specimens show a tendency toward the Spurred Towhee, 588a. *P. m. megalonyx* (Baird), in the slightly less extensive white on outer tail feathers.

[592.1. Oreospiza chlorura (Audubon), the Green-tailed Towhee, was included in former lists on the authority of Baird, but the locality in which his specimens were taken is far without the present boundaries of the state. It is, however, a common bird from May to October in Colorado and eastern Wyoming, and is likely to occur in western Nebraska, during migrations at least.]

593. *Cardinalis cardinalis (Linnaeus)—Cardinal.

Southeastern Nebraska. Rulo, Nebraska City, Omaha, Beatrice, Lincoln—common resident. West to Harlan county, north in winter rarely toWest Point, Maple Creek, and Neligh.

595. *Zamelodia ludoviciana (Linnaeus)—Rose-breasted Grosbeak.

Eastern third of state, or about west to 98th parallel; common to abundant summer resident and breeder. Omaha, Peru, Beatrice, Lincoln, West Point, Neligh. A straggler once at Long Pine. Arrives first week in May, breeds in early June, departs in middle September.

596. *Zamelodia melanocephala (Swainson)—Black-headed Grosbeak.

Representing the preceding in western half of state during the breeding season. Sioux county east to Valentine, Long Pine and even Niobrara City, and Dundy county east to Holdrege, Kearney, Dannebrog, etc.—common to abundant breeder. During migrations over the state, rarely, to Neligh, York, Omaha. Dates as preceding.

597a. *Guiraca caerulea lazula (Lesson)—Western Blue Grosbeak.

Over the entire state; locally common summer resident and breeder. Arrives first week in May, breeds in June, departs from middle to late September. Most common in Dundy, Thomas, and Cherry counties, and east in the Niobrara valley to Knox county; less common in Sioux county, at Broken Bow, Grand Island, Red Cloud, Beatrice, Omaha, and Lincoln.

598. *Cyanospiza cyanea (Linnaeus)—Indigo Bunting.

Eastern Nebraska; common summer resident and breeder west to the 98th meridian. Omaha, Peru, Beatrice, Lincoln, Columbus, West Point, Neligh—breeding. Straggling westward rarely in Niobrara valley to Eagle creek, Long Pine, and even Cherry county. Arrives first week in May, breeds early in June, departs early in September.

599. ***Cyanospiza amœna** (Say)—Lazuli Bunting.

Sioux county; common summer resident and breeder. East during migrations to West Point and Lincoln. Dates as preceding.

604. ***Spiza americana** (Gmelin)—Dickcissel.

Entire state, locally common to abundant, especially eastward; arriving second week in May, breeding in June and July, departing late in August or early in September. Omaha, West Point, Lincoln, Neligh, and Brown, Cherry and Sioux counties—breeding.

605. ***Calamospiza melanocorys** Stejneger—Lark Bunting.

Entire state; abundant westward, uncommon to rare eastward. Sioux to Cherry and Rock counties, Dundy to Harlan counties—abundant breeder. Neligh, Norfolk, Lincoln, Beatrice—occasional breeder, commoner during dry seasons. Dates as preceding species.

EXTRALIMITAL: Ten species belonging to this family are included in the above key which have no record for Nebraska, but which are possible within our boundaries, viz: 527*a*. *Acanthis hornemannii exilipes* (Coues), the Hoary Redpoll, an arctic bird which has occurred in northern Michigan and Illinois; 530. *Astragalinus psaltria* (Say), the Arkansas Goldfinch of the western United States, a species common throughout Colorado and recorded from Cheyenne, Wyoming, and which may eventually be recorded from Western Nebraska; 557. *Zonotrichia coronata* (Pallas), the Golden-crowned Sparrow of the extreme west, has strayed east in migrations to Nevada, Colorado, and even Wisconsin, to the latter state three times; 574*a*. *Amphispiza belli nevadensis* Ridgway, the Sage Sparrow, occurs in Colorado and Wyoming to within a short distance of Nebraska, and may occasionally stray to our sagebrush plains; 575*a*. *Peucæa æstivalis bachmannii* (Audubon), the Bachman Sparrow, occurs north, locally, to the parallel of 40°, and has been taken in southeastern Iowa, so may reach us also; 578. *Peucæa cassini* (Woodhouse) the Cassin Sparrow, of the arid Southwest, occurs north to western and central Kansas, so may be expected along our southern border westwardly; 581*b*. *Melospiza melodia montana* (Henshaw), the Mountain Song Sparrow, is the Colorado form even far out on the plains, so may reach us during migrations; 591. *Pipilo fuscus mesoleucus* (Baird), the Canyon Towhee of eastern Colorado and southwestward might reach our limits; 600. *Cyanospiza versicolor* (Bonaparte), the Varied Bunting of southern Texas and southward has strayed north to Michigan; 601. *Cyanospiza ciris* (Linnaeus), the Painted Bunting, is a southern species occurring north to southern Kansas and Illinois.

Family **TANAGRIDÆ**—Tanagers

1. General color red, or at least the head red. (Adult males) . . . . . (2)
1. General color olive-greenish above, yellow below. (Females and young males) . . . . . (3)
   2. Wings and tail black; back, lower parts and head red. . . . . **Scarlet Tanager.**

2. Wings and tail, along with back, lower parts and head red . . . . . **Summer Tanager.**
2. Wings, tail and back black; under parts yellow, head red. . . . . **Louisiana Tanager.**
3. Wings with two yellow bands, or one yellow and one white; tail grayish brown with yellowish olive-green edgings. . . . . **Louisiana Tanager.**
3. Wings without yellow bands . . . . . (4)
4. Under wing-coverts yellow, without dark outer margin. . . . . **Summer Tanager.**
4. Under wing-coverts white, with olive, dusky, or black exterior border. . . . . **Scarlet Tanager.**

607. ***Piranga ludoviciana** (Wilson)—Louisiana Tanager.

A common summer resident and breeder on Pine ridge in northwest Nebraska.

608. ***Piranga erythromelas** Vieillot—Scarlet Tanager.

A common summer resident and breeder in eastern Nebraska. Arrives first week in May, breeds in June, departs in early September. Omaha, Lincoln, Beatrice, West Point, Weeping Water, Neligh.

610 **Piranga rubra** (Linnaeus)—Summer Tanager.

A rare summer resident in extreme southeastern Nebraska. May breed. Reported from Richardson county by Aughey and from Douglas county by L. Skow and I. S. Trostler, the latter observing a single specimen in July, 1894.

Family **HIRUNDINIDÆ**—Swallows

1. Wing over 5 inches long; male shining blue-black; the female duller colored. . . . . **Purple Martin.**
1. Wing 5 inches or less in length. . . . . (2)
2. Tail 3 inches or more long, the notch more than an inch deep; under tail feathers with white blotches; throat chestnut; back lustrous steel-blue. . . . . **Barn Swallow.**
2. Tail 2½ inches or less long . . . . . (3)
3. Back with metallic luster or greenish. . . . . (4)
3. Back brownish, without lustre. . . . . (5)
4. Above lustrous green, beneath white. . . . . **Tree Swallow.**
4. Above opaque velvety green, beneath white. . **Violet-green Swallow.**
4. Above steel-blue; throat chestnut or black; upper tail-coverts redish. . . . . **Cliff Swallow.**
5. Breast brownish; belly and throat white. . . . . **Bank Swallow.**
5. Throat and breast brownish; belly white. . . . . **Rough-winged Swallow.**

611. ***Progne subis** (Linnaeus)—Purple Martin.

Eastern half of state, common only eastwardly. Arriving about first of April, breeding in the latter part of May and in June, departing in the middle of September. Omaha, Lincoln, West Point, Norfolk, Callaway, North Platte, Broken Bow, Neligh.

612. *Petrochelidon lunifrons (Say)—Cliff Swallow.
Entire state; common summer resident and breeder, arriving by the middle of April, breeding in June, departing in early September. Omaha, Lincoln, West Point, Neligh, North Platte, and Cherry, Sioux and Dundy counties.

613. *Hirundo erythrogastra Boddaert—Barn Swallow.
Abundant over entire state, dates as preceding, but remaining into October.

614. *Iridoprocne bicolor (Vieillot)—Tree Swallow.
Entire state, breeding commonly along its northern border, rarely southward. Omaha, Lincoln, West Point, Neligh—mostly migratory, a rare breeder. Sioux county, Niobrara valley—a common breeder.

615. *Tachycineta thalassina lepida (Mearns)—Violet-green Swallow.
Sioux county; common summer resident and breeder in cliffs. Once taken during migration at West Point by Bruner.

616. *Riparia riparia (Linnaeus)—Bank Swallow.
Entire state; arrives in middle April, breeds in May and June, and departs late in September.

617. *Stelgidopteryx serripennis (Audubon)—Rough-winged Swallow.
Eastern half or more of state—common summer resident and breeder in river banks, especially northwardly. Richardson county, Peru, Omaha, Lincoln, Beatrice, West Point, Neligh, Niobrara valley, Cherry county—breeding.

Family AMPELIDÆ—Waxwings

1. Wing-bar white; the under tail-coverts chestnut. . . Bohemian Waxwing.
1. Wing-bar wanting; under tail-coverts white. . . . . Cedar Waxwing.

618. Ampelis garrulus Linnaeus—Bohemian Waxwing.
An irregular winter visitor, liable to occur from the middle of November till late in February or even March, over the entire state. Omaha, South Bend, Lincoln, Beatrice, West Point, Neligh, Cherry county, Curtis, Sioux county.

619. *Ampelis cedrorum (Vieillot)—Cedar Waxwing.
Eastern Nebraska; very common as a migrant, not common in winter, and breeding but rarely in the state, most frequently northward. Omaha, Lincoln, Beatrice, West Point, Long Pine, Cherry county.

Family LANIIDÆ—Shrikes

1. Breast with wavy cross-bars; no transverse black line on forehead. . . . . Northern Shrike.
1. Breast without conspicuous wavy cross-bars; a transverse black line on forehead . . . . . (2)
2. Rump and upper tail-coverts but little lighter than back. . . . . Migrant Shrike.

2. Rump and upper tail-coverts decidedly lighter colored than back. . . . . **White-rumped Shrike.**

621. **Lanius borealis** Vieillot—Northern Shrike.

A common winter resident over entire state, appearing in middle October, and remaining late into March. Rulo, Peru, Omaha, Lincoln, Beatrice, West Point, Neligh, and Cherry and Sioux counties.

622e. **Lanius ludovicianus migrans** W. Palmer—Migrant Shrike.

This recently recognized subspecies occurs regularly in eastern Nebraska, but is only locally common. Breeding specimens have been taken at Omaha, Lincoln, Beatrice, and West Point, which beyond doubt are referable to *migrans*. On these specimens all former Nebraska records of the "Loggerhead" Shrike are based. Other specimens intermediate between this and the following form are frequent.

622a. ***Lanius ludovicianus excubitorides** (Swainson)—White-rumped Shrike.

Entire state; eastward partially replaced by preceding form, but the commoner form even there. Arives early in April, breeds late in April, in May, and in June, departs early in October. Omaha, Lincoln, Beatrice, West Point, Neligh, and Cherry and Sioux counties.

Family **VIREONIDÆ**—Vireos

1. Without distinct wing-bars. . . . . (2)
1. With distinct white or whitish wing-bars . . . . . (4)
2. Under parts white . . . . . (3)
2. Under parts yellowish; first primary over one inch long; crown gray with a white but no black bordering line over eye . . . . . **Philadelphia Vireo.**
3. Yellowish on sides; larger, first primary less than one inch long . . . . . **Warbling Vireo.**
3. Yellowish on sides; smaller, upper parts, particularly crown, grayer . . . . . **Western Warbling Vireo.**
3. Little or no yellowish on sides; first primary much over one inch long; crown slaty gray, bordered by a black and then a white band over the eye . . . . . **Red-eyed Vireo.**
4. First primary nearly as long as second; breast bright yellow; back bright olive-green; eye-ring yellow . . **Yellow-throated Vireo.**
4. First primary shorter than second, less than one inch long, breast not yellow. . . . . (5)
5. Wing over $2\frac{3}{4}$ inches long, eye-ring white . . . . . (6)
5. Wing under $2\frac{3}{4}$ inches long, eye-ring variable . . . . . (7)
6. Crown and sides of head bluish gray, changing to olive-green on the back; below white . . . . . **Blue-headed Vireo.**
6. Crown and sides of head bluish gray, the back of same shade; below less pure white. . . . . **Plumbeous Vireo.**
7. Crown and sides of head black, changing to olive-green on the back; eye-ring white . . . . . **Black-capped Vireo.**
7. Crown and sides of head gray or olive . . . . . (8)

8. Crown olive, much like back; a distinct yellow line over eye.. .....**White-eyed Vireo.**

8. Head grayish, much like back; eye-ring white.....**Bell Vireo.**

624. ***Vireo olivaceus** (Linnaeus)—Red-eyed Vireo.

Entire state. Our commonest vireo except *bellii*; arriving first week in May, breeding from late in May to July, departing in the middle of September. Peru, Omaha, Lincoln, Beatrice, West Point, Neligh, and Cherry and Sioux counties—breeding throughout the state.

626. **Vireo philadelphicus** (Cassin)—Philadelphia Vireo.

Aughey claims to have found this bird common in eastern Nebraska,but recent observers have not noted it. Of *gilvus* he says "have only found this species abundant in northwestern Nebraska," and there is great probability that he confused the two species. Bruner's records were field identifications, and, with little doubt, refer to *gilvus* also. Skow has reported it from Omaha.

627. ***Vireo gilvus** (Vieillot)—Warbling Vireo.

Eastern portion of the state, not so common as *olivaceus*, its dates the same as for that species. Peru, Omaha, Lincoln, Beatrice, West Point, Neligh, and Cherry county.

627a. ***Vireo gilvus swainsoni** Baird—Western Warbling Vireo.

A Sioux county specimen sent to Witmer Stone has served to confirm the identification of this sub-species. So far it has only been found in Sioux county, where it is common and breeds.

628. ***Vireo flavifrons** Vieillot—Yellow-throated Vireo.

Eastern Nebraska; not recorded west of the 97th meridian, and quite rare north of the Platte. Arrives the first week in May, breeds early in June, departs late in August. Richardson county, Peru, Omaha, Nebraska City, Lincoln, Fairbury—rather a rare breeder, most common along the Missouri river bluffs.

629. **Vireo solitarius** (Wilson)—Blue-headed Vireo.

Eastern Nebraska in the heavier timber along Missouri and Elkhorn rivers; a rare summer resident, and possibly a breeder. Omaha, West Point.

629b. ***Vireo solitarius plumbeus** Coues—Plumbeous Vireo.

Common summer resident and breeder in Sioux county.

630. **Vireo atricapillus** Woodhouse—Black-capped Vireo.

Probably accidental; a single bird clearly seen and thoroughly identified, June 19, 1894, near Bellevue, by I. S. Trostler and L. Skow.

631. ***Vireo noveboracensis** (Gmelin)—White-eyed Vireo.

A not uncommon summer resident in eastern Nebraska along the Missouri river; not recorded west of 97th meridian. Arriving early in May, breeding in June, departing late in September. Aughey

found a nest of this bird in some shrubbery along the Nemaha in Richardson county in the spring of 1875. It is a rather common breeder at Omaha, and has also been noted at Lincoln and West Point.

633. ***Vireo bellii** Audubon—Bell Vireo.

Eastern half of state; abundant summer resident and breeder. Arrives first week in May; breeds late in May, in June, and in July; departs early in September. Peru, Omaha, Lincoln, Beatrice, Neligh —breeding. Long Pine, Valentine—a straggler.

Family **MNIOTILTIDÆ**—Wood Warblers

1. Rictal bristles conspicuous, half as long as culmen or more; bill flattened, wider than high at base; flycatching habits.....(43)
1. Rictal bristles wanting or inconspicuous, decidedly less than half as long as culmen; bill not flattened, as high or higher than wide at base..(2)
   2. Bill narrowly wedge shaped, its tip sharp and not decurved; tail shorter than wing.....(3)
   2. Bill slender but not wedge shaped, its tip decurved, tail shorter than wing.....(11)
   2. Bill short, stout, higher than wide at base, culmen much decurved; tail longer than wing.....(42)
3. Head buffy with four black stripes, above olive-greenish, below buffy .....**Worm-eating Warbler.**
3. Whole head, neck, and under parts bright orange; back, wings, and tail ashy.....**Prothonotary Warbler.**
3. Without four black head-stripes, and whole head not orange.....(4)
   4. Wings with distinct white or yellow bars (5)—wings not barred.(7)
5. Throat black in male, gray in female; a large yellow wing-patch.... .....**Golden-winged Warbler.**
5. Throat yellow; wings merely barred.....(6)
   6. Whole under parts yellow; crown yellow; a black line through the eye.....**Blue-winged Warbler.**
   6. Only throat and breast yellow; back bluish with a yellow spot .....**Northern Parula Warbler.**
7. Rump greenish yellow, unlike grayish back; a yellow breast-patch.. .....**Virginia Warbler.**
7. Rump about the same color as back.....(8)
   8. Under tail-coverts and abdomen yellow.....(9)
   8. Under tail-coverts and abdoman white.....**Tennessee Warbler.**
9. Head gray with chin and throat yellow, and a white eye-ring..... .....**Nashville Warbler.**
9. Head olive-greenish, lighter below, no eye-ring.....(10)
   10. Duller, above grayish olive-green, below pale olive-yellowish .....**Orange-crowned Warbler.**
   10. Brighter; above bright olive-green, below bright olive-yellow .....**Lutescent Warbler.**

11. Inner web of outer tail feather with a distinct white spot (12)—without a white spot. . . . . (33)
12. Plain black and white with a broad white median crown-stripe. . . . . **Black and White Warbler.**
12. Not plain black and white, or if so, crown wholly black or dark (13)
13. Rump yellow (14)—not yellow . . . . . (17)
14. White on tail in middle, extending equally over all but middle pair of feathers. . . . . **Magnolia Warbler.**
14. White on tail near tip, or else occupying most of feathers. . . . (15)
15. Crown black, cheeks chestnut; below yellow, streaked with black in adult. . . . . **Cape May Warbler.**
15. Crown and sides of breast more or less yellow; cheeks black or dark blue . . . . . (16)
16. Throat white—**Myrtle Warbler**—yellow. . . . . **Audubon Warbler.**
17. Wing with a white patch at base of primaries; male, bluish above and white below, with cheeks, sides and throat black; female, olive above, yellowish below. . . . . **Black-throated Blue Warbler.**
17. Wing without such a white patch . . . . . (18)
18. Throat and chest black or partly black (19)—without black (20)
19. Cheeks mostly blackish. . . . . **Townsend Warbler.**
19. Cheeks mostly yellow . . . . . **Black-throated Green Warbler.**
20. Wings with two distinct bands, sometimes joined to form a patch . . . . . (21)
20. Wings not banded or with but one band . . . . . (31)
21. Upper parts not grayish blue. . . . . (22)
21. Upper parts light grayish blue . . . . . **Cerulean Warbler,** male.
22. A light line over eye (23)—no light line over eye. . . . . (26)
23. Throat white or yellowish white, no yellow on sides of head; above pale greenish blue. . . . . **Cerulean Warbler,** female.
23. Throat yellow, orange, or buff, or else sides of head mostly yellow. . . (24)
24. Back plain slate-gray in adult, grayish brown in young; cheeks and forehead black. . . . . **Sycamore Warbler.**
24. Back neither gray nor plain grayish brown. . . . . (25)
25. Back in male black and throat orange; in female streaked, throat yellowish. . . . . **Blackburnian Warbler.**
25. Back olive-green; throat wholly yellow. . . . **Townsend Warbler,** young—throat not wholly yellow . . . . . **Black-throated Green Warbler, young.**
26. Back more or less streaked (27)—plain olivaceous; below greenish yellow. . . . . **Pine Warbler.**
27. Sides of crown or space behind eye, black. . . . . (30)
27. Sides of crown not black. . . . . (28)
28. Under tail-coverts white. . . . . (29)
28. Under tail-coverts buff. . . . . **Bay-breasted Warbler,** young.
29. Sides of head, sides, and flanks unstreaked gray. . . . . **Chestnut-sided Warbler,** young.
29. Sides of head, sides, and flanks olive or streaked. . . . . **Black-poll Warbler,** young.

30. Crown olive-yellow; sides of head, throat and chest white, sides chestnut. . . . . **Chestnut-sided Warbler.**
30. Crown chestnut; sides of head black; throat, chest, and sides chestnut. . . . . **Bay-breasted Warbler.**
30. Crown black, no chestnut, but wholly black and white. . . . . **Black-poll Warbler.**
31. Back streaked with black; a white eye-ring; below pale yellow, sides streaked. . . . . **Kirtland Warbler.**
31. Back not streaked with black; no eye-ring. . . . . (32)
32. A distinct yellowish wing-band; crown unstreaked olive, below yellow. . . . . **Prairie Warbler.**
32. No wing-band; crown chestnut in adult, streaked grayish in young . . . . . **Palm Warbler.**
33. Above greenish yellow; below bright yellow, streaked with chestnut in male. . . . . **Yellow Warbler.**
33. If bright yellow below, not streaked, and sides of head with blackish(34)
34. Under parts distinctly spotted (35)—not spotted. . . . . (37)
35. Crown rufous, bordered by black; a white eye-ring but no dusky streak behind the eye. . . . . **Ovenbird.**
35. Crown plain olivaceous; no eye-ring, but with a dusky streak behind the eye. . . . . (36)
36. Line over eye narrow, yellowish; under tail-coverts yellowish; under parts, including throat, heavily streaked with blackish on a yellowish ground. . . . . **Grinnell Water-thrush.**
36. Line over eye broad, white; under tail-coverts buffy; under parts, excluding throat, lightly streaked with brownish on a buffy ground. . . . . **Louisiana Water-thrush.**
37. Throat and chest bright yellow; sides of head with black. . . . . (38)
37. Throat and chest bluish gray to blackish (male) or brownish to grayish (female). . . . . (40)
38. A yellow line over eye; whole crown black or grayish black . . . . . **Kentucky Warbler.**
38. No yellow line over eye; only forehead black. . . . . (39)
39. Space behind black on forehead of male pale gray; yellow of under parts duller; female darker above Smaller, tail under 2 inches. . . . . **Northern Yellowthroa.**
39. Space behind black on forehead of male white; yellow of under parts much brighter, more orange; female paler above. Larger, tail over 2 inches. . . . . **Western Yellowthroat.**
40. Tail nearly even; breast without black, a decided white eye-ring . . . . . **Connecticut Warbler.**
40. Tail rounded; breast with black; no decided eye-ring, at most eyelids white. . . . . (41)
41. No white on eyelids; tail under 2 inches; chest blacker, lores less so in male. . . . . **Mourning Warbler.**
41. A white mark on each eyelid; tail over 2 inches, chest less black, lores more so. . . . . **Macgillivray Warbler.**

42. Brighter olive-green above, more greenish than gray; white on sides of throat more restricted, occupying less than half of malar area; yellow paler; tail under 3 inches long . . **Yellow-breasted Chat.**
42. Grayer olive-green above, usually the gray predominating; white on sides of throat much more extended, occupying more than forward half of malar area; yellow deeper; tail over 3 inches long . . . . . **Long-tailed Chat.**
43. Base of tail, middle of wings, and sides orange (male) or dull yellow (female) . . . . . **Redstart.**
43. No orange or dull yellow on wings or tail; belly bright yellow . . . . . (44)
44. Outer tail feather largely white; head black, with forehead and cheeks yellow . . . . . **Hooded Warbler.**
44. Outer tail feather without white; throat yellow, not black (45)
45. Upper parts grayish; under tail-coverts white; a necklace of dusky spots across breast . . . . . **Canadian Warbler.**
45. Upper parts olive-green; under tail-coverts yellow; forehead yellow, male with black cap . . . . . (46)
46. Brighter; above more yellowish olive-green, below brighter yellow; wing over $2\frac{1}{5}$ inches . . . . . **Pileolated Warbler.**
46. Duller olive-green above, duller yellow below; smaller, wing under $2\frac{1}{5}$ inches . . . . . **Wilson Warbler.**

636. ***Mniotilta varia** (Linnaeus)—Black and White Warbler.

A very common migrant over at least the eastern half of state, breeding in the wooded portions. Aughey records finding a nest near Lincoln in May, 1875, Swenk found it breeding commonly along the Niobrara from Long Pine canyon to its mouth, Wolcott and J. M. Bates report it summering in Cherry county, and L. Skow found it breeding at Omaha.

637. ***Protonotaria citrea** (Boddaert)—Prothonotary Warbler.

A fairly common summer resident and breeder in the heavily wooded Missouri bottoms, arriving late in April, breeding in June, and departing late in August and early in September. Aughey saw it a few times in Richardson county during June, 1875. It breeds every year around Omaha, though becoming each year less numerous, and M. A. Carriker, Jr., has found nests at Nebraska City. Has been seen once in migration at Lincoln and once at West Point.

639. **Helmitheros vermivorus** (Gmelin)—Worm-eating Warbler.

Aughey found this warbler in southeastern Nebraska in June, 1875, F. J. Brezee and I. S. Trostler have noted it in July and August at Omaha, and Wolcott has noted it several times in the vicinity of Lincoln, on the capitol grounds and in the deep woods near Roca, where it was present all summer in 1903. Breeding almost certain.

641. ***Helminthophila pinus** (Linnaeus)—Blue-winged Warbler.

A rather common summer resident and breeder in the wooded Missouri bottoms, arriving early in May and departing late in August.

Aughey observed it near the mouth of the Nemaha in June, 1875. It is present about Omaha and Peru all summer, and during 1900 nests were taken at the former locality by J. E. Wallace. Migrating individuals have been seen at Lincoln and Weeping Water.

642. **Helminthophila chrysoptera** (Linnaeus)—Golden-winged Warbler.

The only record of this eastern warbler is the one made by Aughey who stated he had occasionally seen it in eastern Nebraska. As it occurs regularly west to Minnesota it may yet prove not rare in the Missouri bottoms where its breeding is quite possible.

644. **Helminthophila virginiæ** (Baird)—Virginia Warbler.

Again our only record is Aughey's, who saw a single specimen of this western warbler in a narrow belt of timber in the Republican bottoms in Hitchcock county. Of course it must be considered but a straggler in our state.

645. ***Helminthophila rubricapilla** (Wilson)—Nashville Warbler.

A common migrant and rare summer resident in the Missouri river region along the eastern edge of the state, where it breeds. Aughey found a young bird just from the nest June 10, 1865; and on June 11, 1900, at Nebraska City, M. A. Carriker, Jr., shot a female, with well-formed eggs in her ovary which showed evidence of having a nest in the vicinity; the latter, however, he was unable to find. This species remains all summer in the vicinity of Omaha, and has also been seen at Weeping Water and West Point.

646. **Helminthophila celata** (Say)—Orange-crowned Warbler.

An abundant migrant, passing during the first half of May and late in September to the middle of October. Breeds north of United States except in mountains. Omaha, Lincoln, Beatrice, Peru, West Point, Neligh.

647. **Helminthophila peregrina** (Wilson)—Tennessee Warbler.

A common migrant in eastern Nebraska, passing early in May and late in September, breeding north of us. Omaha, Lincoln, Peru, West Point, Sioux county.

648. **Compsothlypis americana usneæ** Brewster—Northern Parula Warbler.

Aughey says of the Parula Warbler that it reaches Nebraska about May 1, that it is found principally along timber belts and in orchards, and he has frequently seen the young soon after leaving the nest, but has never found the nest itself. The only addition to this record is a single male specimen taken April 20, 1901, near Havelock by Merritt Cary. This specimen agrees with Ridgway's new form, *C. a. ramalinæ*, but until action is taken by the A. O. U. committee, our bird must be referred to *usneæ*.

650. **Dendroica tigrina** (Gmelin)—Cape May Warbler.

A rare migrant. Two definite records, a male taken at Alda, May

12, 1883, by F. W. Powell, and another at Omaha, May 24, 1893, by L. Skow. Breeds north of the United States.

652. **Dendroica æstiva** (Gmelin)—Yellow Warbler.

An abundant summer resident and breeder throughout the state, especially eastward; arriving the first week in May, breeding late in that month, through June and into July, and departing early in September.

654. **Dendroica cærulescens** (Gmelin)—Black-throated Blue Warbler.

This bird Aughey found present in small numbers during both spring and fall migrations, in eastern Nebraska, and he records shooting one at Lincoln in September, 1874. Bruner has noted it on rare occasions at both Omaha and West Point, but no other observers seem to have seen it. Breeds from northern states northward.

655. **Dendroica coronata** (Linnaeus)—Myrtle Warbler.

An abundant migrant in at least the eastern half of the state, uncommon westward. Arrives late in April and lingers until the middle of May, appearing again in October and present during most of that month. Aughey records finding young birds in eastern Nebraska on several occasions, and seeing birds in June, but it has not been seen in summer by recent observers, and, while offering no explanation of Aughey's observations, we cannot accept it as a breeder. Winters south of us.

656. ***Dendroica auduboni** (Townsend)—Audubon Warbler.

A very common summer resident among the pines of Sioux county, where it breeds. A nest was found May 20, 1900, by the expedition of that year, which, however, contained no eggs. On June 14, 1901, Cary found a nest in Warbonnet canyon from which a set of four fresh eggs was secured on the 27th of that month.

657. **Dendroica maculosa** (Gmelin)—Magnolia Warbler.

An uncommon migrant. Aughey records it as occasionally seen during migrations in northeastern Nebraska and of having taken one near Ponca in May, 1865. A specimen taken at Omaha by F. J. Brezee is now in Bruner's collection. Cary found them in fair numbers at Neligh during the spring migration, May 16 to 22, but not in the fall. Recorded twice from Lincoln. Breeds north of the United States.

658. ***Dendroica cærulea** (Wilson)—Cerulean Warbler.

A rather common summer resident along the wooded bluffs of the Missouri river, where it breeds. In the vicinity of Omaha several nests have been found. It arrives early in May and departs late in August. Cary took a female at Neligh May 17, 1899.

659. ***Dendroica pensylvanica** (Linnaeus)—Chestnut-sided Warbler.

A common migrant along the eastern edge of the state. In the vicinity of Omaha it is frequently seen throughout the summer, and

has once been found breeding, a set of four eggs being taken by I. S. Trostler, June 23, 1894.

660. **Dendroica castanea** (Wilson)—Bay-breasted Warbler.

The right of this warbler to be considered as a Nebraska bird rests entirely upon Aughey's record. He found it occasional in eastern Nebraska and took a specimen in September, 1874. This is an eastern species barely reaching the Missouri, and breeding from the northern states northward.

661. **Dendroica striata** (Forster)—Black-poll Warbler.

A common migrant over the eastern half of the state, passing through during the second and third weeks in May and in August. Breeds from the northern states northward. Omaha, Lincoln, Beatrice, Peru, West Point, Neligh, Cherry county.

662. **Dendroica blackburniæ** (Gmelin)—Blackburnian Warbler.

Aughey states that he has occasionally seen this well marked warbler in the borders of woodlands in eastern Nebraska, and Bruner has noted it at West Point and Omaha. It breeds from northern Minnesota northward.

663a. **Dendroica dominica albilora** Ridgway—Sycamore Warbler.

Aughey's record of *dominica* undoubtedly refers to this subspecies, which breeds in the Mississippi valley from Texas to central Illinois and eastern Kansas, and stragglers even to Wisconsin and Michigan. He says he has seen it only along the Nemaha in southeastern Nebraska, where he took a specimen in September, 1874; no one else has reported it. It probably occasionally breeds in the extreme southeastern part of the state.

667. **Dendroica virens** (Gmelin)—Black-throated Green Warbler.

A rare migrant through eastern third of state. Aughey records taking three specimens in Dakota county June 5 and 6, 1865, and two in Lancaster county June 14,1875. Bruner has observed it at Omaha, Florence, and Weeping Water. Cary reported it twice from Neligh, late in April, 1898, and May 4, 1899. Breeds from northern Illinois northward.

671. **Dendroica vigorsii** (Audubon)—Pine Warbler.

Aughey says this warbler occurs here during early spring and autumn, and that he took specimens in Dakota county in April, 1865, and Lancaster county in April, 1875 and 1877. He also took one Sept. 30, 1876. No other definite Nebraska records of this bird. It breeds from Minnesota and Manitoba southward, and may be found nesting in this state.

672. **Dendroica palmarum** (Gmelin)—Palm Warbler.

Aughey recorded this species as abundant in eastern Nebraska, which it certainly is not now, but is rare. He noted it in both early spring and late fall, and took specimens April 10,1875, and Oct. 1,

1876. The only other Nebraska record is a specimen taken at Omaha, May 4, 1893, by L. Skow. Breeds north of the United States.

673. ***Dendroica discolor** (Vieillot)—Prairie Warbler.

Like the preceding Aughey recorded this species as abundant in eastern Nebraska, but recent observers do not find it so by any means. He found young in Dakota county and a nest in Richardson county near the Nemaha, and recorded specimens from the former locality June 1, 1865, and from Lancaster county Sept. 5 and 20, 1874, June 2 and 14, 1875, and June 4, 1877. Since then Bruner has noted it at West Point and Omaha, and L. Skow at the latter locality also. It should be found breeding in small numbers along the Missouri river, especially southward.

674. ***Seiurus aurocapillus** (Linnaeus)—Ovenbird.

A common summer resident; found throughout the state, but more especially eastward. Arrives first week in May, breeds in June, departs early in September. Omaha, Peru, Beatrice, Lincoln, West Point, Neligh, Sioux county.

675a. ***Seiurus noveboracensis notabilis** Ridgway—Grinnell Water-thrush.

An uncommon migrant over the state, breeding in Sioux county. Passes during second and third week in May and early in September. Omaha, Lincoln, West Point, Neligh, Sioux county.

676. ***Seiurus motacilla** (Vieillot)—Louisiana Water-thrush.

Along the eastern edge of the state; breeding rather commonly in suitable localities along the bluffs of the Missouri river at Omaha and Peru, and in Richardson county. Occurring as a migrant a little farther west, at Lincoln, Beatrice, etc.

677. ***Geothlypis formosa** (Wilson)—Kentucky Warbler.

A common summer resident and breeder in the wooded ravines of the bluffs along the Missouri river, rarely as far west as Lincoln. Omaha, Peru, Lincoln—breeding.

679. ***Geothlypis philadelphia** (Wilson)—Mourning Warbler.

Aughey found this bird in the eastern part of the state, and also found young birds being fed by the parents in the southeastern portion, thus establishing it as a breeder. L. Skow took two specimens at Omaha, May, 21, 1893, and Cary found it a not uncommon migrant at Neligh, May 16 to 24, 1899. No other records.

680. **Geothlypis tolmiei** (Townsend)—MacGillivray Warbler.

Aughey records noting this species in western Nebraska, probably along the Republican river, late in August, 1874. Cary noted it in Monroe canyon, Sioux county, May 27, 1900, and later during 1901, several times. Breeding probable.

681a. ***Geothlypis trichas occidentalis** Brewster—Western Yellowthroat.

In the western part of the state, breeding abundantly in Sioux

county. During migrations specimens which approach this form, are found over the entire state, and such have been recorded from Lincoln, West Point, and Kennedy.

681d. ***Geothlypis trichas brachidactyla** (Swainson)—Northern Yellow-throat.

This is the yellow-throat of the eastern portion of the state, where it is an abundant migrant and very common breeder, arriving the last week in April and remaining until late in September. Westward it grades into and finally becomes replaced by the preceding form. Omaha, Peru, Beatrice, Lincoln, Norfolk, West Point, Neligh, Holt county, Niobrara valley, Long Pine, Cherry county—breeding. The more western specimens are so nearly intermediate between this and the preceding that it is difficult to satisfactorily place them.

683. ***Icteria virens** (Linnaeus)—Yellow-breasted Chat.

An abundant summer resident and breeder along the eastern edge of the state and a little westward; arriving the first week in May, breeding from late in May to July, departing in the middle of September. Omaha, Peru, Weeping Water, Lincoln, etc.

683a. ***Icteria virens longicauda** (Lawrence)—Long-tailed Chat.

This is the common chat of the state, of which breeding specimens from Sioux and Cherry counties and the Niobrara valley are typical, those from east central Nebraska grading into *virens* but nearer this form. Over the whole state during migrations. Lincoln, Beatrice, West Point, Neligh, Valentine, Thedford, Holdrege, etc. Dates about as for preceding.

684. **Wilsonia mitrata** (Gmelin)—Hooded Warbler.

Aughey observed this well marked warbler along the Nemaha river in southeastern Nebraska on several occasions in September, 1874. Recent observers have not recorded it. Breeding very probable.

685. **Wilsonia pusilla** (Wilson)—Wilson Warbler.

This bird Aughey found sparingly in both eastern and western Nebraska, and mentions especially one seen in southwestern Nebraska along the Republican late in August, 1874. There is every probability that this bird was a Pileolated Warbler, 685a. *W. p. pileolata* (Pallas), which form occurs east across the plains to Minnesota and Missouri, but in the absence of this or other specimens the status of this and typical *pusilla* cannot now be determined. The Wilson Warbler has been taken at both West Point and Omaha by Bruner, was found to be a common migrant at Neligh by Cary, April 28 to May 13 and Sept. 2, and was observed at Gresham by Dickinson. Breeds north of Nebraska.

686. **Wilsonia canadensis** (Linnaeus)—Canadian Warbler.

Our only record of this bird seems to be the one by Aughey who observed it in spring in the eastern part of the state and shot a single

specimen on the Nemaha in Richardson county in the middle of May, 1875. Breeds north of Nebraska.

687. *Setophaga ruticilla (Linnaeus)—Redstart.

An abundant breeder and summer resident over the state, arriving first week in May and departing in the middle of September. Omaha, Lincoln, Beatrice, West Point, Neligh, Long Pine, Cherry county, Holdrege, Sioux county—breeding.

EXTRALIMITAL: The Lutescent Warbler, 646a. *Helminthophila c. lutescens* Ridgway, may reach western Nebraska during migrations, as it occurs on the plains east of the Rockies in Colorado. 668. *Dendroica townsends* (Townsend)—The Townsend Warbler, a bird of western North America, found during migrations east to the plains of Wyoming (Cheyenne), Colorado (Ft. Lyon), and Texas, and accidental in Pennsylvania. 670. *Dendroica kirtlandii* Baird—The Kirtland Warbler. This rare warbler has been taken in Illinois, Michigan, Minnesota, Wisconsin, and Missouri, and its occurrence in Nebraska is possible. 678. *Geothlypis agilis* (Wilson), the Connecticut Warbler, of the eastern United States, has as yet no Nebraska record, but, as it occurs regularly west to Minnesota and casually even to Colorado, its ultimate inclusion in our fauna is but a matter of time.

Family MOTACILLIDÆ—Pipits

1. Tail about one-half inch shorter than wing, the inner web of its outer feather chiefly dusky; tarsus as long as hind toe and claw, feet dark; colors dull, obscure. . . . . **Pipit.**
1. Tail about three-fourths inch shorter than wing, the inner web of its outer feather chiefly white; tarsus shorter than hind toe and claw, feet pale; colors bright, distinct. . . . . **Sprague Pipit.**

679. **Anthus pensilvanicus** (Latham)—Pipit.

A common migrant, passing in April and early in May and again late in September and in October; breeding far north. Omaha, Lincoln, West Point, Neligh.

700. **Anthus spragueii** (Audubon)—Sprague Pipit.

Migrant; not so common as preceding; same dates. Omaha, Lincoln, West Point.

Family CINCLIDÆ—Dippers

Slaty gray, tinged with brown on head and neck; frequenting running streams. . . . . **Dipper.**

701. **Cinclus mexicanus** Swainson—Dipper.

So far as known, the only record of this bird for Nebraska is of the one seen by Bruner on the White river in Sioux county west of Crawford in May, 1891. The bird was clearly seen sporting among the rocks along the stream. It is a common resident in Colorado and Wyoming and east into the Black hills.

FAMILY MIMIDÆ—THRASHERS AND MOCKERS

1. Under parts spotted (3)—not spotted. . . . . (2)
   2. Slaty, with black crown and tail and chestnut under tail-coverts . . . . . Catbird.
   2. Gray above, soiled white below; band on wing and outer tail feathers white. . . . . Mockingbird.
   2. Slightly lighter above, tinged with brownish below; wing-patch larger. . . . . Western Mockingbird.
3. Above brownish gray; below spotted with triangular dusky spots . . . . . Sage Thrasher.
3. Above rich rufous; below spotted with long brownish spots; two wing-bands. . . . . Brown Thrasher.

702. **Oroscoptes montanus** (Townsend)—SAGE THRASHER.

Rare, and so far as known, confined to northwestern Nebraska. Baird's "Nebraska" records are now extralimital, referring to Ft. Laramie and the Black hills. A. K. Fisher saw a single bird at a distance of six feet at Alliance, Box Butte county, July 12, 1893, and it has been found nesting within a half mile of the Nebraska line in Wyoming, May 20, 1900, by Cary and Carriker. Residents of the Hat Creek valley report it as occasional in that region.

703. ***Mimus polyglottos** (Linnaeus)—MOCKINGBIRD, and

703a. ***Mimus polyglottos leucopterus** (Vigors)—WESTERN MOCKINGBIRD.

This bird is found throughout the entire state; south of the Platte a common summer resident and breeder; rare north of middle of state. Arrives in the middle of April, breeds in June, departs about the middle of October. Rulo, Nebraska City, Weeping Water, Lincoln, Beatrice, Franklin, Kearney, North Platte, McCook, Stratton, Haigler, Sidney—breeding; even north to Sioux county, though not common—breeding. Specimens from the last locality much paler in color and with more extended white markings than eastern birds have been identified by Witmer Stone as *leucopterus*, and there is no doubt the Sidney record refers to the same form. In regard to the records from other localities westward, however, it is impossible, in the absence of specimens, to make a definite statement; nor is it possible to limit the range of the two in the state.

704. ***Galeoscoptes carolinensis** (Linnaeus)—CATBIRD.

Whole of state; abundant eastward, common westward, arriving the first week in May, breeding in June, departing late in September.

705. ***Toxostoma rufum** (Linnaeus)—BROWN THRASHER.

Over the entire state; abundant except in the more western portions, breeding throughout. Arrives late in April, breeds late in May, and in June, departs late in September.

FAMILY TROGLODYTIDÆ—WRENS

1. Upper parts brown, not barred nor streaked; a white line over eye; large wrens. . . . . (2)

1. Upper parts more or less barred crosswise; wings, tail and flanks fully barred; tail not fan shaped ..... (4)
1. Upper parts streaked lengthwise; flanks scarcely barred; marsh wrens; tail not fan shaped ..... (6)
1. Upper parts dotted with dusky and whitish spots; tail broad and fan shaped ..... (8)
2. Tail brownish, distinctly barred, shorter than wing; above reddish brown. ..... **Carolina Wren.**
2. Tail blackish, not fully barred, longer than wing; above grayish brown. ..... (3)
3. Darker, more brownish above; beneath soiled white, flanks more brownish; smaller. ..... **Bewick Wren.**
3. Paler, more grayish above; beneath pure white, flanks scarcely brownish; larger. ..... **Texas Bewick Wren.**
4. Tail much shorter than wings; above bright cinnamon, below pale cinnamon, heavily barred. ..... **Winter Wren.**
4. Tail as long as wings; above pale cinnamon, below gray washed with brownish, lightly barred ..... (5)
5. Darker, more reddish brown above, the bars obscure; darker below, strongly brownish. ..... **House Wren.**
5. Paler, more grayish brown above, the bars distinct; paler, almost white, below. ..... **Western House Wren.**
6. Crown streaked with white; bill under ½ inch long. ..... **Short-billed Marsh Wren.**
6. Crown not streaked; bill ½ inch or more long ..... (7)
7. Bars on middle tail feathers and both tail-coverts indistinct or lacking, ... **Long-billed Marsh Wren.**
7. Bars on middle tail feathers and tail-coverts distinct, continuous; paler. ..... **Interior Tule Wren.**
8. Belly, rump, and tail rusty; back rusty brown; throat white ..... **Canyon Wren.**
8. Whole under parts whitish; back grayish brown, rump rusty ..... **Rock Wren.**

715. ***Salpinctes obsoletus** (Say)—Rock Wren.

An abundant breeder in the Pine ridge country of northwest Nebraska, south through Scott's Bluff and Banner to Kimball and Cheyenne counties, east through Dawes and Sheridan counties to the Minnechaduza and Gorden canyons in Cherry county, breeding in the rim-rocks in June. Aughey records finding a nest in an old slab pile near Dakota City, June 3,1865, and another in an old stump along Salt creek in June, 1875, but recent observers have noted it as a migrant only in eastern Nebraska. Neligh, West Point, Lincoln—migrating in late April and early May.

[717a. **Catherpes mexicanus conspersus** Ridgway—Canyon Wren.

In Sioux county in a canyon on White river between Glen and Andrews, Aug. 12, 1903, Bruner saw a wren which he identified as

this species, but did not secure the specimen. There can be little doubt as to the correctness of the identification, but it is deemed advisable to withhold this bird from full standing in the list until the taking of a specimen places the record beyond all doubt, since it is a rare species in both Colorado and Wyoming.]

718. **Thryothorus ludovicianus** (Latham)—Carolina Wren.

Aughey saw this bird but once in Nebraska, in Richardson county, June 12, 1875. Bruner saw it again years afterward at Rulo in the same county. The third and last instance of its occurrence was a specimen taken at Roca, Feb. 20, 1902, by J. S. Hunter (See Proc. N. O. U. III, p. 108). It is probably a rare resident in the extreme southeastern part of the state.

719. ***Thryomanes bewickii** (Audubon)—Bewick Wren.

Aughey's record stands alone for this bird in Nebraska. He found a nest near the Missouri river in Otoe county, June 12, 1875, and watched the parents feed their young with small locusts.

The recording of *T. b. bairdii* (in part *cryptus*) from Nebraska was a guess by Taylor as to the identity of Aughey's specimen. Since the rearrangement of the subspecies, (See Proc. U. S. Nat. Mus., XXI, pp. 421-450) the only other form likely to occur in this state is 719c. *T. b. cryptus* Oberholser, the Texas Bewick Wren, which is found north to Kansas and eastern Colorado and may straggle into western Nebraska.

[721. **Troglodytes aedon** Vieillot—House Wren.

Both eastern and western forms of this species have been recorded from this state, but a careful examination proves them *all* to refer to the western subspecies. The western range of *aedon* is to Indiana and Illinois and it probably never reaches this state.]

721a. ***Troglodytes aedon aztecus** (Baird)—Western House Wren.

Entire state, abundant summer resident and breeder; arriving in the middle of April, breeding in the latter part of May, and in June and departing late in September and in October, though lingering even to the first of November.

722. **Olbiorchilus hiemalis** (Vieillot)—Winter Wren.

Rather rare winter resident, appearing in the middle of September and present until March. Omaha, Peru, Dunbar, Blair, West Point, Neligh, Lincoln. Breeds north of this state.

724. ***Cistothorus stellaris** (Lichtenstein)—Short-billed Marsh Wren.

An uncommon migrant and rare summer resident in eastern Nebraska. Aughey found a nest in a marsh in Dixon county in 1867, the only time he found it breeding. It has also been found at Omaha, West Point, and Lincoln in summer, and nests have been found at the two latter localities (See Proc. N. O. U. III, p. 108).

725. *Telmatodytes palustris iliacus Ridgway—Long-billed Marsh Wren.

A very common migrant and a common summer resident, arriving in the middle of April, breeding in the latter part of June and early in July and departing in September. Abundant breeder in the sand-hill lake region of Cherry county, common everywhere in marshes in the state. Omaha, Tekamah, West Point, Lincoln, Beatrice, York, Neligh.

EXTRALIMITAL: 725c. *Telmatodytes p. plesius* Oberholser, the Interior Tule Wren, is the form breeding in Colorado and Wyoming and has been taken to within a few miles of the state line, so may be found in western Nebraska during migrations.

Family CERTHIIDÆ—Creepers

1. Browner above, with tawny of rump less distinctly contrasted with color of back; smaller, with a shorter bill (wing $2\frac{3}{5}$ to $2\frac{7}{10}$, tail $2\frac{1}{2}$ to $2\frac{9}{10}$ inches) ..... **Brown Creeper.**
1. Grayer above, with tawny of rump more distinctly contrasted with color of back; larger, with a longer bill (wing $2\frac{1}{2}$ to $2\frac{7}{10}$, tail $2\frac{7}{10}$ to $2\frac{3}{4}$, bill $\frac{7}{10}$ to $\frac{4}{5}$ inches ..... **Rocky Mountain Creeper.**

726. *Certhia familiaris americana (Bonaparte)—Brown Creeper.

Eastern Nebraska, resident; common all winter in more southern parts, less so northward, rare between middle April and early October when most of them go north to breed. Aughey "found a nest of this bird in a knot-hole in the timber near Dakota City, in June, 1865," and Trostler has evidence of its breeding near Omaha, rarely. Rulo, Dunbar, Omaha, West Point, Ponca, Neligh, Lincoln, Beatrice. The westernmost record is from St. Michael just east of the 99th meridian.

726a. Certhia familiaris montana Ridgway—Rocky Mountain Creeper.

Sioux county in winter. The specimen taken there Feb. 17, 1896, and on which the only existing record was based, has been examined by Oberholser who confirms the identification. It is rare in Sioux county and ascends to higher altitudes in spring, probably early in April.

Family SITTIDÆ—Nuthatches

1. Larger, wing about $3\frac{1}{2}$ inches; below white, rusty on flanks and under tail-coverts only ..... (2)
1. Smaller, wing about $2\frac{1}{2}$ inches; whole under parts tinged with brownish, often bright rusty ..... (3)
   2. Above lighter, more plumbeous, tertials light bluish gray with large, sharply defined, oblong patches of black, the one on outer web of third feather rounded at end; sides of neck grayish white; smaller wing about $3\frac{3}{5}$ inches, bill shorter, stouter ..... **White-bellied Nuthatch.**
   2. Above darker, more slaty; tertials dark bluish gray with narrower, less sharply defined black patches, the one on

outer web of third feather pointed at end; sides of neck pure white; larger, wing about 3⅘ inches, bill longer, more slender. . . . . **Rocky Mountain Nuthatch.**

3. Crown black (male) or gray like back (female), with a black line through eye and a white one over it; under parts usually bright rusty; no spot on nape. . . . . **Red-bellied Nuthatch.**

3. Crown dull brownish (adult) or gray like back (young) changing to blackish before and behind eye, but no white line over eye; nape with a poorly defined white spot . . . . . **Pygmy Nuthatch.**

727. ***Sitta carolinensis** Latham—White-bellied Nuthatch.

Greater part of state, eastward; common resident and breeder. Omaha, Lincoln, West Point, Blair, Tekamah, Ponca, Neligh, Long Pine, etc. Breeds usually in April and May.

727c. ***Sitta carolinensis nelsoni** Mearns—Rocky Mountain Nuthatch.

Sioux county, common resident and breeder. Oberholser has verified this identification in regard to both winter specimens and breeding birds. To this form refer all the previous valid Nebraska records of *aculeata*.

728. **Sitta canadensis** Linnaeus—Red-bellied Nuthatch.

Whole state; uncommon winter resident, present from the middle of October until the middle of May. There is much circumstantial evidence to indicate the breeding of this bird in the state, but as yet no definite record. Omaha, Dunbar, Lincoln, Dakota City, Neligh, Long Pine, Sioux county. The earliest Lincoln record is October 26, 1903, (Swenk), the latest May 10, 1898 (J. S. Hunter).

730. **Sitta pygmæa** Vigors—Pygmy Nuthatch.

A fall and winter visitor in the pine clad region of northwest Nebraska. Aughey met with this bird once (1877) in the "timbered bottoms and bluffs of the Niobrara river on the northern border of the state." The Sioux county records for the "Brown-headed Nuthatch," (see Bruner, Birds of Nebraska, p. 160), on Feb. 26, 1896 (L. Skow), and for the "Hudsonian Chickadee," on Dec. 13, 1895 (L. Bruner), were both misidentifications and should refer to this species. The Omaha records for the "Pygmy Nuthatch" (l. c. p. 160) refer probably to immature examples of the Red-bellied. Ascends to higher parts in March and not breeding in the state.

Family **PARIDÆ**—Titmice

1. Head conspicuously crested; above ashy with black forehead, below dull white. . . . . **Tufted Titmouse.**

1. Head not crested; top of head and throat glossy black . . . . . (2)

2. Forehead and line over eye white; wings scarcely edged with white. . . . . **Mountain Chickadee.**

2. Forehead black, no line over eye; wings broadly white-edged . . (3)

3. Colors darker, above olive-gray, wings and tail moderately edged with

hoary, the latter not so terminally; smaller with shorter tail (2½ to 2¾ inches); black on head less extensive, white less pure . . . **Chickadee.**

3. Colors paler, above pure ash-gray, wings and tail very broadly edged with hoary, that on latter generally passing around the tips, that on former much broader on tertials and greater wing-coverts; larger, with longer tail (2⅞ to 3 inches); black on head more extensive on nape and reaching breast, sides of head pure white . . . . . **Long-tailed Chickadee.**

731. **Bæolophus bicolor** (Linnaeus)—Tufted Titmouse.

Not uncommon (locally) in eastern Nebraska in more heavily timbered districts, rare elsewhere and not present west of 98th meridian. Resident, and with little doubt a breeder, but as yet there is no taking of a nest recorded. Rulo, Peru, Dunbar, Omaha, Tekamah, West Point, Dakota City, Neligh, Lincoln.

735. ***Parus atricapillus** Linnaeus—Chickadee.

In extreme eastern Nebraska an occasional chickadee is found nearer to *atricapillus* than the following form, but such are not plentiful and most of the eastern Nebraska birds are intermediates. Omaha, Lincoln, Beatrice—breeding.

735a. ***Parus atricapillus septentrionalis** (Harris)—Long-tailed Chickadee.

Entire state; abundant resident, eastward running into preceding form; breeding in April and May. Sioux and Cherry counties, Niobrara valley, Neligh, West Point, Tekamah, Omaha, Dunbar, Lincoln, Beatrice—breeding.

[738. **Parus gambeli** Ridgway—Mountain Chickadee.

Baird's record referred to what is now Wyoming, so this must be dropped as a Nebraska bird. However it occurs at Cheyenne, Wyo., commonly, and may reach northwest Nebraska in winter.]

Family **SYLVIIDÆ**—Kinglets and Gnatcatchers

1. Outer tail feather white; bluish gray, with blackish wings and tail . . . . . **Blue-gray Gnatcatcher.**

1. Outer tail feather not white; above olive-green, below whitish. . . . . (2)

2. A yellow crown patch bordered by black on the sides. . . . . **Golden-crowned Kinglet.**

2. A ruby crown patch (male) or none (female), and no black . . . . . **Ruby-crowned Kinglet.**

748. **Regulus satrapa** Lichtenstein—Golden-crowned Kinglet.

Migratory, common; passing in April and October, but rarely wintering. Breeds north of Nebraska. Omaha, Lincoln, West Point, Dakota City, Neligh, York, Long Pine.

749. **Regulus calendula** (Linnaeus)—Ruby-crowned Kinglet.

Migratory, commoner than preceding, appearing early in April and lingering often until the middle of May, breeding north of us, returning early in October, and lingering through that month, occasionally

wintering. Omaha, Peru, Lincoln, Beatrice, York, West Point, Dakota City, Neligh.

751. ***Polioptila cærulea** (Linnaeus)—Blue-gray Gnatcatcher.
Common migrant, passing in April and late in September over the eastern third of the state, breeding in suitable localities along the Missouri river, especially in the vicinity of Omaha, where several nests have been taken. Omaha, Peru, Lincoln, Beatrice, West Point, Dakota City, Neligh.

Family **TURDIDÆ**—Thrushes, Bluebirds, and Solitaires

1. Color ashy, with outer tail feathers white tipped, a buff wing-band and pale eye-ring; no blue in plumage, not spotted below. . . . . **Townsend Solitaire.**
1. Color gray, with upper tail-coverts and base of tail white, rest of tail, wings, and cheeks black, throat and breast pale buff unspotted. . . . . **Greenland Wheatear.**
1. Color above slaty, below mostly rusty brown, breast unspotted in adult, plumage without blue. . . . . (2)
1. Color below white spotted with dark and no chestnut; no blue in plumage. . . . . (4)
1. Color mostly blue. . . . . (10)
2. A black band across breast; throat and line behind eye rusty. . . . . **Varied Thrush.**
2. No black band across breast; throat white with black spots. . . (3)
3. Under tail feathers with distinct white tips on first two pairs; black of hind neck grading into slaty gray of back, which is spotted with black. . . . . **Robin.**
3. Under tail feathers without distinct white tips; black of hind neck abruptly defined against pale slaty gray back, which lacks the black spots. . . . . **Western Robin.**
4. Rufous tail and upper tail-coverts decidedly brighter than olive-brown back. . . . . (5)
4. Back and tail of practically the same color. . . . . (6)
4. Olive rump and tail decidedly duller than bright cinnamon-brown back; breast and sides with many round black spots **Wood Thrush.**
5. Above dull brown, more smoky in winter, flanks olive brownish; smaller, wing 3½ to 3¾, tail 2¾ to 3 inches; bill heavier . . . . . **Hermit Thrush.**
5. Above grayish brown, more olivaceous in winter; flanks light grayish; larger, wing 4 to 4¼, tail about 3¼ inches; bill slenderer. . . . . **Audubon Hermit Thrush.**
6. Upper parts cinnamon-brown throughout (7)—olive throughout. (8)
7. Upper parts light tawny brown, sides of throat cream-buff with only the very center immaculate, breast light tawny buff marked by narrower more pencilled brownish spots, sides white slightly tinged with grayish, under mandible not tipped with brown or but very slightly so. . . . . **Wilson Thrush.**
7. Upper parts olivaceous tawny most tawny on the rump, throat almost

immaculate and unmarked, breast dark olivaceous buff more heavily marked with blunt arrow shaped fuscous spots, sides white strongly tinged with olivaceous, under mandible horn color tipped with brown. . . . . **Willow Thrush.**

8. Throat, breast, cheeks, eye-ring, and lores gray with a very slight buffy tinge. . . . . **Gray-cheeked Thrush.**

8. Throat, breast, cheeks, eye-ring, and lores deep cream buff. . . . (9)

9. Upper parts more olivaceous, sides and flanks less grayish. . . . . **Olive-backed Thrush.**

9. Upper parts more grayish, especially on rump and upper tail-coverts; sides, and flanks more grayish. . . . . **Alma Thrush.**

10 Whole upper parts blue (11)—middle of back chestnut. . . . . **Chestnut-backed Bluebird.**

11. Throat and breast chestnut. . . . . **Bluebird.**

11. Throat and breast not chestnut, but pale blue. . . . . **Mountain Bluebird.**

754. ***Myadestes townsendii** (Audubon)—Townsend Solitaire.

Resident in northwest Nebraska. Common summer resident in Sioux county, breeding in the latter part of May, in winter spreading eastward over the entire state. Valentine, Long Pine, Niobrara valley, Neligh, Norfolk, Alda, Lincoln, Beatrice—wintering.

755. ***Hylocichla mustelina** (Gmelin)—Wood Thrush.

Entire state; abundant summer resident and breeder eastward, uncommonly so westward; arriving first week in May, breeding in June, departing by the middle of September. Omaha, Lincoln, Beatrice, Peru, West Point, Dakota City, Neligh, Long Pine, Sioux county—breeding.

[756. **Hylocichla fuscescens** Stephens, the Wilson Thrush, is the form of Eastern North America west to Missouri (see Howe, Auk, XVII, pp. 18-25), but may straggle west into eastern Nebraska. However, in the absence of specimens, all our records are referred to the following.]

756a. **Hylocichla fuscescens salicicola** Ridgway—Willow Thrush.

An uncommon migrant, arriving the first week in May and lingering into June, departing early in September. It is probably an occasional breeder, but as yet the only evidence of its nesting is a pair seen by Wolcott near Lincoln June 2, 1898, in a locality very favorable for that purpose, the male in full song. Richardson county, Omaha, Lincoln, West Point.

757. **Hylocichla aliciæ** (Baird)—Gray-cheeked Thrush.

An uncommon migrant, passing through in the middle of May to breed north of the United States. Beatrice, Lincoln—migrating.

758a. **Hylocichla ustulata swainsonii** (Cabanis)—Olive-backed Thrush.

An abundant migrant in eastern Nebraska, arriving the first week in May or a little earlier, lingering until well into June, breeding north of the state, reappearing in early September and present most of that

month. Omaha, Lincoln, West Point, Neligh, Kearney, Long Pine, Valentine.

758b. **Hylocichla ustulata almæ** Oberholser—ALMA THRUSH.
The western or mountain form of *ustulata* and a common migrant in Sioux county, arriving about the middle of May and a few lingering through the summer in Warbonnet canyon, where it may breed. Oberholser has kindly verified this determination. Some, possibly most, of the records provisionally placed under the preceding form may belong to this recently differentiated race, especially those from Valentine and Long Pine.

759a. **Hylocichla guttata auduboni** (Baird)—AUDUBON HERMIT THRUSH.
Migratory; our only definite record is of a specimen taken at Lincoln April 9, 1900, by M. A. Carriker, Jr., and identified by Oberholser as *auduboni*. Probably a number of the records placed provisionally under the next form belong here.

759b. **Hylocichla guttata pallasii** (Cabanis)—HERMIT THRUSH.
An uncommon migrant in eastern Nebraska, arriving the first week in April and lingering through May, reappearing late in September. The breeding record from Alda by F. W. Powell (Bull 2. Div. Orn. p. 287) was probably a mistake. Omaha, Lincoln, Fairbury, West Point, Dakota county.

761. ***Merula migratoria** (Linnaeus)—ROBIN.
Over the whole state, abundant summer resident and breeder; arriving the first week in March, breeding from the middle of April through May and June, departing late in October and early in November, present in small numbers all winter. Westward runs into the following form, but typical *migratoria* occurs over the state, though less common westward. Omaha, Lincoln, West Point, Neligh, Cherry and Sioux counties—breeding.

761a. ***Merula migratoria propinqua** Ridgway—WESTERN ROBIN.
Western Nebraska, not recorded east of the 100th meridian even during migrations. Most of our Western birds are intermediates with an occasional well-defined *propinqua*. Breeds in Sioux county, east in migrations to Curtis. Dates as for preceding, or somewhat later.

766. ***Sialia sialis** (Linnaeus)—BLUEBIRD.
Entire state; abundant eastward but rare westward; arriving first week in March, breeding from early in May to the middle of July, departing from late in September to the middle of October, rarely wintering. Omaha, Peru, Lincoln, Beatrice, West Point, Neligh, Long Pine, and Cherry and Sioux counties—breeding, even in the latter locality.

767a. **Sialia mexicana bairdi** Ridgway—CHESTNUT-BACKED BLUEBIRD.
Accidental. A bird of the west, occurring regularly as a migrant

along the eastern base of the Rockies, accidental east to Iowa and Minnesota. Included on Aughey's record, who reported it as "rare" in the state, and to have seen "it for the first time in August on the Niobrara, about seven miles from its mouth in a dense timber." He was close enough to observe its feeding habits.

768. ***Sialia arctica** Swainson—Mountain Bluebird.

Western Nebraska; Sioux and Dawes to Kimball and Cheyenne counties, breeding commonly in the higher parts of Pine Ridge in late May and June.

EXTRALIMITAL: 763. *Ixoreus nævius* (Gmelin), the Varied Thrush, of the Pacific coast has straggled east even to the Atlantic coast; 765a. *Saxicola œnanthe leucorhoa* (Gmelin), the Greenland Wheatear, has occurred in winter (accidentally) in New York, Maine, Michigan, and even Louisiana and Colorado.

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